

भारत सरकार
अन्तरिक्ष विभाग
सतीश धवन अंतरिक्ष केन्द्र
शार
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Department of Space
**Satish Dhawan Space Centre
SHAR**
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**GOVERNMENT OF INDIA :: DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTER SHAR :: SRIHARIKOTA – 524 124
SRI POTTI SREERAMULU.NELLORE DISTRICT (A.P)**

TENDER NOTICE NO. SDSC SHAR/HPS/PT/03/2015-16

On behalf of President of India, Head Purchase and Stores, SDSC SHAR, SRIHARIKOTA invites on line quotations for the following:

Sl No	Ref. No.	Description	Qty.	Tender Fee
01	SHAR VAST 2015 00 2254 e-procurement [TWO part basis]	Supply, Installation and Commissioning of Rails Tracks, Track change over system and associated systems of Second Vehicle Assembly Building (SVAB) Project in SDSC SHAR, Sriharikota	1 LS	₹.230/-
02	SHAR VAST 2015 00 2592 e-procurement [TWO part basis]	Operation/Driving & Maintenance of Material handling Equipment in SDSC SHAR Sriharikota	36 Months	₹.230/-

Last Date for downloading of tender documents : 15.06.2015 at 16:00 hrs.

Due Date for submission of bids online : 15.06.2015 at 16:00 hrs.

Due Date for Bid Sealing on : 15.06.2015 at 16:01 hrs. to 15.06.2015 at 17.30 hrs.

Due Date for Open Authorization : 15.06.2015 at 17.31 to 17.06.2015 at 17:00 hrs.

Due Date for opening of tenders : 18.06.2015 at 14:30 hrs.

Instructions to Tenderers:

01. For full details/scope of work and terms and conditions etc., please see the enclosed annexures.

02. Interested tenderers can download the e-tender from ISRO e-procurement website <https://eprocure.isro.gov.in> and offers may be submitted on line in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered. The Tender Fee of Rs.230/- by Crossed Demand Draft drawn on State Bank of India, Sriharikota in favour of Accounts Officer, SDSC SHAR, Sriharikota for the above material may be submitted to the Sr. Purchase & Stores Officer before the due date. The DD No and date shall be mentioned in the e-portal for verification by Department.

03. Tender documents are also available on ISRO website www.isro.org; and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be down loaded and offers may be submitted on line in the e-procurement portal.

04. Offers sent physically by post/courier/in person will not be considered.

05. On-line Quotations can not be submitted after the due date/time given in the tender schedule.

06. Parties, submitted bids, shall give Open authorization on-line as per the tender schedule and offers with out open authorization can be considered for evaluation.

07. The tender documents are available for download upto **15.06.2015 at 1600 hrs** and **last date for receipt of tenders on line 15.06.2015 at 1600 hrs. and Tender Opening on 18.06.2015 at 14:30 hrs.**

08. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations.

DT: 21.05.2015

HEAD, PURCHASE AND STORES

Second Vehicle Assembly Building (SVAB) Project

REQUEST FOR PROPOSAL

For

**SUPPLY, INSTALLATION AND COMMISSIONING OF RAILS TRACKS,
TRACK CHANGE OVER SYSTEM
AND ASSOCIATED SYSTEMS**

OF

SVAB PROJECT

(Ref: SHAR/VAST/ 2015E002254)



Satish Dhawan Space Centre SHAR
Indian Space Research Organization
Sriharikota -524 124, A.P

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PROPOSAL DOCUMENT, CLARIFICATION AND ADDENDUM

Proposals are invited from the interested Suppliers for the enclosed scope of work in two part bid. Part-1 Technical and Unpriced part of the work and Part-2 Priced Commercial part.

The tender document is organized in four sections as follows.

Section –A	General Terms and Conditions of the Contract
Section –B	Scope of Work
Section –C	Technical Specifications
Section –D	Annexures

Title of the Project: Second Vehicle Assembly Building Project

Title of the tender proposal: **“SUPPLY, INSTALLATION AND COMMISSIONING OF RAILS TRACKS, TRACK CHANGE OVER SYSTEM AND ASSOCIATED SYSTEMS”.**

Date of Tender issued: *As per notification*

Last Date of downloading tender Document: *As per notification*

Last date of submission of tender documents: *As per notification*

SECTION-A

**GENERAL TERMS AND CONDITIONS
OF CONTRACT**

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1.0 INSTRUCTION TO BIDDERS

1.1 PROPOSAL DOCUMENT, CLARIFICATION AND ADDENDUM

1.1.1 Proposal Document

- 1.1.1.1 One set of proposal document along with the drawings is issued. Bidder shall sign and stamp each page of proposal as token of his acceptance & submit before placement of order.
- 1.1.1.2 Transfer of Proposal document issued to one Bidder to another is not permissible.
- 1.1.1.3 Proposal documents shall remain the property of Department and if obtained by one intending Bidder shall not be utilisable by another without the consent of the Department.
- 1.1.1.4 The proposal (Unpriced Techno-commercial bid) with a complete set of the required documents shall be up-loaded in ISRO e-procurement website.
- 1.1.1.5 The proposals shall be submitted on-line before the time limit for bid submission specified in the letter inviting bid.
- 1.1.1.6 Supplier shall submit the open authorization online with in the time limit specified in the letter inviting bod.
- 1.1.1.7 The proposal will be opened on the date and on the time specified in the letter inviting bid or as soon thereafter as convenient. Proposal not received in time will not be considered.
- 1.1.1.8 Bidders shall set their quotations in firm figures and without variations/additions in the terms of the proposal documents.

1.2 PREPARATION OF BIDS

1.2.1 Site Visit

Bidder is advised to visit and examine the site and its surrounding to familiarise himself of the existing facilities and environment and shall collect all other information which he may require for preparing and submitting the Bid and entering into the contract. Claims and objections due to ignorance of existing conditions or inadequacy of information will not be considered after submission of the Bid and during implementation.

1.2.2 Validity Of Offer

Bid shall remain valid for acceptance for a period of 6 (six) months from the due date of submission of the Bid. The Bidder shall not be entitled during the said period to revoke or cancel his Bid or to vary the Bid except and to the extent required by Department in writing. Bid shall be revalidated for extended period as required by Department in writing. In such cases, unless otherwise specified, it is understood that validity is

sought and provided without varying either the quoted price or any other terms and conditions of Bid finalised till that time.

1.2.3 Cost Of Bidding

All direct and indirect costs associated with the preparation and submission of Bid (including clarification meetings and site visit, if any), shall be to Bidder's account and the Department will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bid process.

1.2.4 Applicable Language

The Bid and all correspondence incidental to and concerning the Bid shall be in the English Language. For supporting document and printing literature submitted in any other language, an accurate English Translation shall also be submitted. Responsibility for correctness in translation shall lie with the Bidder.

1.2.5 Schedule of Prices

The schedule of prices shall be read in conjunction with all the sections of proposal document. The price must be filled online in the same format of "Schedule of price: in Annexure-I. No copy of price bid shall be enclosed along with other document and upload the same anywhere in the e-procurement portal.

1.3 BID SUBMISSION

Bids duly filled in by the Bidder shall invariably be submitted as stipulated in the Letter inviting bid. Bids shall be submitted in the following manner.

1.3.1 **Part – I : Un priced Techno-Commercial Part of the Bid for the Work**

Complete Techno–commercial part of the bid shall be filled online in the "vendor Specified Terms" form of the e-tender. Any documents related (demand draft for tender fee & EMD), technical literature, guarantee / warrantee certificates and any other relevant documents as per the tender shall be scanned in lower resolution format and uploaded to the e-tender under 'Documents solicited from Vendor' form only in ISRO e-procurement portal (<https://eprocure.isro.gov.in>). In case if the space for uploading is not sufficient, hard copy of the balance documents shall be submitted before due date.

Unpriced copy of schedule of prices with all other commercial terms, taxes, duties, exemption certificates and conditions duly filled (**Prices to be kept blank**), signed and stamped copy shall be scanned and uploaded.

Envelope of technical bid shall be marked with following:

<u>PART-I TECHNO-COMMERCIAL BID</u>	
Name of client	: Satish Dhawan Space Centre SHAR Indian Space Research Organisation
Title of the proposal	: “”SUPPLY, INSTALLATION AND COMMISSIONING OF RAILS TRACKS, TRACK CHANGE OVER SYSTEM AND ASSOCIATED SYSTEMS”
Due date and time of the opening	: DD/MM/YY
From (Name of the bidder with address)	:
To: Head, Purchase & Stores Satish Dhawan Space Centre SHAR ISRO, Dept. of Space Govt. of India Sriharikota – 524124, SPSR Nellore Dist, Andhra Pradesh, India	

The deviation statement and checklist shall be filled online, without which the bid will not be considered.

1.3.2 Part – II : Price Part of the Bid for the Work

Price bid shall be filled in the on-line 'price bid' form of the e-tender only in ISRO e-procurement website <https://eprocure.isro.gov.in>. The cost of spares and other prices shall be filled in the respective forms available on-line in the e-portal. Any other terms and conditions given in this part shall not be considered and if insisted upon by the Bidder, bids are liable for rejection.

- a) SDSC SHAR may open Part – I of the bid on the due date of opening subject to meeting the minimum evaluation criteria. Price Bids (Part-II) of technically and commercially acceptable offers shall be opened at a later date.
- b) SDSC SHAR reserves the right to reject any or all the Bids without assigning any reasons thereof.
- c) ***Any bids/offers with price details in Techno-Commercial Offer***

(Part –I) shall be rejected.

- d) SDSC SHAR reserves rights to place order for either full quantities of all items or partial quantities and partial items based on the unit rates available.

1.4 SECURITY DEPOSIT

1.4.1 The contractor whose tender is accepted will be required to furnish by way of Security Deposit for the due fulfilment of the contract such a sum as will amount to 10 % of the contract price of the work awarded.

1.4.2 The security deposit (bearing no interest) shall be held by the Department as security till satisfactory competition, testing and handing over of all the system and for the due performance of all contractor's obligations under the contract as per delivery period or extension granted thereof by the Department.

1.4.3 The contractor within 10 days of Purchase Order or signing of Contract, deposit with the Accounts officer, Satish Dhawan Space Centre SHAR, Sriharikota as detailed above by any one or more of the following modes namely

- (a) By a crossed demand draft in favour of Accounts officer, Satish Dhawan Space Centre SHAR drawn on SBI and payable at Sriharikota.
- (b) By an acceptance bank guarantee. The bank guarantee shall be from a nationalised bank for & shall be valid for 30 days beyond completion period.

1.4.4 In case of breach of contract, the Security deposit shall stand forfeited in addition to other relief available to the Department under this contract.

1.5 Earnest Money Deposit

1.5.1 The tenderer shall remit Rs. 1 Lakh as Earnest Money Deposit (EMD) in the form of demand draft (DD) with the tender, failing which the tender will not be considered.

1.5.2 The EMD shall be remitted by a DD from any Nationalized/Scheduled Bank in favour of ACCOUNTS OFFICER, Satish Dhawan Space Centre SHAR, Payable at SBI, Sriharikota.

1.5.3 Cheques will not be accepted towards EMD.

1.5.4 EMD by the unsuccessful tenderer will be refunded after the finalization of tender. EMD shall not bear any interest.

1.5.5 EMD of the successful tenderer will be refunded after receipt of Performance Security.

- 1.5.6 DD Number and other reference details shall be filled on-line, and the original DD shall be sent to Head, Purchase & Stores, Satish Dhawan Space Centre SHAR, ISRO, Dept. of Space, Govt. of India, Sriharikota – 524124, before the tender due date.

2.0 SPECIAL PROVISIONS:

2.1 TECHNICAL DOCUMENTS MADE AVAILABLE BY THE DEPARTMENT TO THE CONTRACTOR:

- 2.1.1 If for the execution of the contract the Department supplies to the Contractor:

(a) Design Documents, samples and models.

The contractor shall be responsible for the above material, equipment and components and their proper maintenance. He shall not alienate them or use them for purposes other than those specified in the contract. Any pattern, sample or information in documentary or other physical form remains the property of the Department and shall be returned to the Department after execution of the Contract, unless their disposal is otherwise provided for in contract.

- 2.1.2 In the case of losses, destruction or damage, except damage through proper use or caused by a representative or an employees of the Department, the Contractor shall be required, unless other wise provided in the contract, to replace or to repair at his own expenses any article issued to him, or to refund its value. For this purpose, a delivery document shall stipulate the price, with provision for possible revision of that price. The contractor shall also be required to keep a permanent inventory and/or utilisation account of the articles placed under his control and, unless already marked by the department, to mark these article in unambiguous way as being the property of the Department.

- 2.1.3 Any other specific conditions relating to such issues shall be determined in the contract.

- 2.2 The Contractor shall impose the above said provisions to any sub-contractor.

COMPENSATION FOR DAMAGE CAUSED TO GOODS, PROPERTY OR TO PERSONS:

Unless otherwise provided in the contract, claims in the respect of damage occurring during the execution of the contract or during the acceptance tests shall be settled in the following manner:

- 2.2.1 Claims in the respect of damage of any nature sustained by the Department representatives or employees participating in the execution of the contract or in the acceptance tests shall be settled in accordance with the law.

- 2.2.2 Claims for damage caused to movable or immovable property owned by the Department or the Contractor shall be settled in accordance with the law governing the Contract. However, any damage cause to equipment, supplies and technical documents made available by the

Department to the Contractor shall be governed by the provisions of Clause. 3.1

3 LEGAL PROVISIONS

3.1 ARBITRATION:

In the event of any question, dispute of difference arising under these conditions or any conditions contained in the Purchase Order or in connection with this contract, (except as to any matters the decision of which is specially provided for by these conditions) the same shall be referred to the sole arbitration of the head of the Purchase Office or some other person appointed by him, it will be no objection that the arbitrator is a Government Servant that he had to deal with matter to which the contract relates or that in the course of his duties as Government Servant he had expressed views on all or any of the matters in disputes or difference. The award of the arbitrator shall be final and binding on the parties of this contract.

It is Term of this contract:

(a) If the arbitrator be the head of the purchase office.

i. In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor-in office either to proceed with the reference himself, or to appoint another person as arbitrator, or.

ii. In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Purchase Office to appoint another person as arbitrator: or

(b) If the arbitrator be a person appointed by the Head of the Purchase Office in the event of his dying, neglecting or refusing to act, or resigning or being unable to act, for any reason, it shall be lawful for the Head of the Purchase Office either to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator.

Subject as aforesaid, the Indian Arbitration and Conciliation Act, 1996 and the rules there under and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this Clause. The arbitrator shall have the power to the extent with the consent of the Purchaser and the Contractor the time making and publishing the award. The venue of arbitration shall be place as the purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during arbitration Proceedings.

(c) In case order is concluded on the public Sector Undertakings, the following Arbitration Clause will be applicable.

In the event of any dispute or differences relating to the interpretation and

application of the provisions of contracts, such dispute or difference shall be referred by either party to the Arbitration of one of the Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Bureau of Public Enterprises. The Indian Arbitration and Conciliation Act, 1996 shall not be applicable to the Arbitration under this clause. The award of the arbitrator shall be binding upon the parties to the dispute provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such Additional Secretary when so authorised by the Law Secretary whose decision shall bind the parties finally and conclusively. The parties to the dispute will share equally the cost of arbitration as intimated by the arbitrator.

3.2 INFRINGEMENTS OF THE LAW:

The Department shall not be responsible if the Contractor infringes the laws or statutes currently in force in India, or of the country in which the contract is carried out.

3.3 INFRINGEMENT OF THIRD-PARTY RIGHTS:

3.3.1 Unless otherwise stipulated in the contract, the Contractor shall indemnify the Department from and against all claims, proceeding, damages, costs and expenses arising from or for the infringement of Third party Intellectual Property rights in respect of patent rights, copy rights or other protected rights with respect to the subject of the contractor excluding any infringement resulting from the use of designs, plans, diagram, documents, patterns drawings or goods supplied by the Department which may be made or brought against the Department, or to which the Department may be put by reasons of such infringement or alleged infringement.

3.3.2 The Department shall notify the Contractor immediately of the written claim or notice of infringement of third-party rights, which it receives concerning the contract.

The Contractor shall immediately take all necessary steps at his own expense within his competence to prevent or end a dispute and shall assist the Department to defend against, or make settlement in respect of, any claim or notice of infringement or suit for infringement.

Written claims or notices of infringements of third-party rights will be accepted or met by the Department only in agreement with the Contractor.

3.3.3 In the event of any designs, drawings, plans or diagrams or any manufacturing methods or processes furnished by the Contractor constituting infringement of Third Party Intellectual Property Rights in respect of patent or any other protected rights and use thereof is restrained, the Contractor shall procure for the Department, at no cost

to the latter, the rights to continue using the same or to the extent it is possible to replace the same so as to avoid such infringement and subject to approval by the Department or modify them so that they become non-infringing but such modifications shall otherwise be to the entire satisfaction of the Department.

3.3.4 The parties shall notify each other of any known intellectual property rights connected with the use of designs, plans, diagrams documents, patterns, drawings and goods supplied by the one party to the other connected with the execution of the specification laid down by the other party.

3.3.5 The provision of this clause shall remain effective and binding upon the Contractor even after the completion, expiration or termination of the contract.

3.4 DISCLOSURE AND USE OF INFORMATION BY THE CONTRACTOR

3.4.1 If the documents supplied by the Department/Consultant are marked 'restricted use' the Contractor shall take all necessary steps to ensure that the requirements of the contract or any specification, plan, drawing, pattern, sample or information supplied by, or on behalf of, the Department/ Consultant in connection therewith shall not be disclosed to any person other than a person employed or engaged by the Contractor, whether under sub-contract or otherwise, for the performance of the contract.

3.4.2 Any disclosure to any person permitted under sub-clause 3.4.1 shall be made in confidence and shall extend only so far as may be necessary for the purpose of the contract.

3.4.3 Except with the written consent of the Department, the Contractor shall not make use of any specification or other data mentioned in sub-clause 4.4.1 otherwise than for the purpose of the contract.

3.4.4 Contractor shall guarantee that all information and data received during execution of Contract from Department or Consultant shall be classified as confidential within the meaning of the Official Secrets Act and will not be divulged to any third party without prior written permission of Department. All drawings & documents shall be returned after execution of work.

4 GENERAL FINANCIAL PROVISIONS:

4.0 BOOKS OF CONTRACTOR TO BE OPEN DEPARTMENT

Except as may be otherwise stipulated in the contract the Books of the Contractor relating to the Contract shall be open to the Department. The Department may inspect all such books, bills, vouchers and other financial records at any time.

The Contract shall specify the type and format of records and manner and frequency of inspection by the Department.

4.1 RIGHT TO AUDIT:

Except as may be otherwise stipulated in the contract the department reserves the right to audit, either itself or through an authorised representative, the claim of the contractor for costs incurred in the execution of a contract.

4.2 PRICES GOVERNMENT TAXES, DUTIES LEVIES, ETC.

Prices quoted shall be for design, preparation of drawings, manufacture, inspection & testing at shop, packing, forwarding, transportation from place of manufacture to site, handling & storage at site, erection, testing & commissioning including all risks coverage during transit, storage, erection, testing & commissioning including all taxes & duties as applicable except sales tax, works contract tax, service tax which shall be indicated separately in price bid. However a copy of the Price offer duly masking the prices shall be enclosed to commercial terms offer also for information.

All rates of Taxes /Duties /Levies applicable with details of percentages & applicable portion of the price shall be spelt out clearly in the offer. Any variation in taxes & duties from the base date of offer during the contract period till the scheduled date of delivery shall be reimbursed by Department subject to production of documentary evidence by Contractor.

If new Taxes & duties become applicable after conclusion of contract during the contract period till the scheduled date of delivery, the same shall be reimbursed to the contractor on production of documentary proof.

4.3 FOREIGN EXCHANGE OUTGO AND VARIATION

4.3.1 Bidder shall indicate the Foreign exchange component considered in their offer as per the Pro-forma provided in the Schedule of price. The foreign exchange component shall be included in the lumpsum price quoted / unit rates quoted. The foreign exchange component shall be limited to the amount indicated.

4.3.2 Foreign exchange rate prevailing on the date of payment shall be considered for adjustment of foreign exchange outgo / lumpsum price over the base price and foreign exchange rate considered in the price bid / as indicated in the contract / purchase order against documentary evidence indicating the prevailing conversion rates for foreign currencies.

4.3.3 For variation in foreign exchange rate for currency other than those indicated, the base exchange rate for such currency prevailing on the date of price bid / revised offer which ever is later subject to documentary evidence shall be considered.

4.3.4 Foreign exchange rate variation shall be applicable for both plus and minus variation in rate based on actual payment during execution of work as per scheduled delivery dates indicated in the offer.

4.4 EXCISE DUTY

Department is eligible for Excise Duty Exemption under Notification No. 64/95 dated 16.03.1995 as amended by Notification No. 15/2007 dated 01.03.2007 and we shall provide necessary Exemption Certificate. No claim for payment of Excise Duty or Cenvat reversal will be allowed later. Suppliers have to consider this into account while submitting quotations.

4.5 SALES TAX

4.5.1 With effect from 01.04.2007, the facility of Inter-State purchases by Government Departments against Form-D / Form-C has been withdrawn. Now the rate of CST on the Inter-State sale to Government Departments shall be the rate of VAT/State Sales Tax applicable in the State of the selling dealer. Accordingly, the suppliers have to clearly indicate the %age of CST/ VAT applicable against each case in their tenders.

4.6 SERVICE TAX:

Service tax, if applicable shall not be included but indicated separately in schedule of prices (percentage of service tax applicable & amount on which it is applicable.)

4.7 CUSTOMS DUTY AND CLEARANCE

4.7.1 SDSC-SHAR is eligible for 100% Customs Duty exemption as per Notification No.12/2012 dated 17.03.2012. This may be taken into account while considering the import of items.

4.7.2 The customs duty that becomes payable even against production of customs duty exemption certificate (limiting to the items as per the foreign exchange component indicated in the price schedule) will be reimbursed on production of documentary evidence (copy of assed Bill of entry & TR-6 Challan). Hence this component need not be included in the quoted price.

4.7.3 Customs clearance and other formalities at the destined port within the country shall be handled by the Supplier at his own cost. Further the transportation from the port to the work of Supplier or site shall be arranged by Supplier at his own cost.

4.8 HIGH SEA SALES

4.8.1 Against High Sea Sale transactions Offers shall be on "all inclusive basis" including delivery upto Sriharikota at the risk and cost of the

supplier. Customs clearance is the responsibility of the Supplier and at his cost and risk.

4.8.2 100% payment will be made within 30 days after receipt and acceptance of the items at our site. However, in exceptional cases based on merit of the case, 100% payment against delivery and satisfactory inspection at our site may be considered.

4.8.3 Sales Tax is not applicable

4.8.4 Customs Duty Exemption Certificate and other relevant documents required for Customs clearance will be provided.

4.8.5 High Sea Sales Agreement furnished by the Supplier in accordance with the terms and conditions of our purchase order will be signed and issued by SDSCSHAR.

4.9 The delivery period mentioned in the tender enquiry, if any, is with the stipulation that no credit will be given for earlier deliveries and offers with delivery beyond the period will be treated as un-responsive.

4.10 RISK COVERAGE

4.10.1 The Contractor shall arrange comprehensive risk coverage at its cost covering the value of plant and equipment including transportation to the site from manufacturer's work's, storage at site, fabrication, erection, testing and commissioning at site. The period of such coverage shall be up to contractual completion period or any extension granted by Department thereof.

4.10.2 Contractor shall comply with all statutory insurance regulations like ESI, workman compensation, insurance coverage for work force, etc.

4.10.3 Insurance of Free issue material issued by Department:

The contractor shall be wholly responsible for the safety of free issue material supplied by the department. Contractor shall provide Insurance policy covering all risks and indemnity bond for the full value of Free Issue Material as declared by Department.

4.11 INCOME TAX :

Income tax at the prevailing rate as applicable and if applicable from time to time shall be deducted from the contractor's bills as per Income Tax Act. and a certificate issued (TDS Certificate).

4.12 PACKING, TRANSPORT & TRANSIT RISK COVERAGE EXPENSES:

4.12.1 The Contractor shall arrange to have all the material suitably packed as per the standards statutes and as specified in the contract. Unless otherwise provided for in the contract, all containers (including packing cases, boxes, tins, drums, and wrappings) used by the Contractor shall be non-returnable.

4.12.2 Material shall be shipped in accordance with special provisions made in the contract.

4.12.3 Unless otherwise stated in the contract, the cost of transport shall be deemed to cover delivery to the place stipulated by the contract.

4.12.4 All packing and transport charges, transit handling costs, transit risk coverage and transport fees of agents employed at the place of delivery or elsewhere, shall be deemed included in the price to be paid to the Contractor.

4.13 ADVANCE AND PROGRESS PAYMENTS:

4.13.1 Contractor shall not divert to uses not provided for in the contract any material or services in respect of which advances or progress payments have been made.

The Department reserves the right to ask the contractor for any additional special guarantee (in addition to Bank guarantee) in order to safeguard its financial interest.

4.13.2 In the event of any violation of clause 4.13.1, the Department reserves the right to ask for return of the advances or payments without prejudice to its rights.

4.14 DISCOUNTS

Bidders shall not indicate any discount separately and quoted price shall be after deducting the discount.

4.15 CONTROL OPERATIONS:

4.15.1 The Contractor agrees to make available on request to the Department or the persons or bodies designated by it in the contract any documents necessary for the proper execution of the audits and accounting investigations. He undertakes to furnish, if requested by the Department, all information and justification regarding costs, price, stocks, supplies and services relevant to the contract. This information shall be provided in writing if so requested. The control shall normally take place at the contractor's premises.

4.15.2 While observing any relevant security regulations the contractor undertakes to permit the Department and the persons or bodies designated by it in the contract to inspect the facilities and premises where the work is executed, and also the stores which the stocks and goods are housed, to the extent that there are stocks and goods necessary to the execution of the contract.

4.15.3 All information given will be treated as confidential.

4.16 FINAL SETTLEMENT

4.16.1 The Contractor shall be allowed to claim final settlement when all his obligations under the Contract have been fulfilled. He shall submit a final statement in five copies. For the application of this clause, the obligations referred to above shall not include those of warranty.

4.16.2 The Contractor shall supply the Department with all documents specified in the Contract and necessary for payment, without explicit request by the Department.

4.16.3 Unless otherwise provided for in the contract, a period of one month shall be granted to the Department for the execution of the final payment. This period shall begin on a date to be stated in the contract.

4.16.4 Whenever any sum of money shall be recoverable from, or payable to, the parties to the contract, the sum may be deducted from the sum due, or thereafter becoming due, to the parties under any other contract between the parties, provided the sums in question are not subject of any dispute between the parties.

5 CONTRACT PERIOD

S.No	Work Description	Time Scale
1	Supply of Rails, Change Over System, Rail clips and resilient pad as per scope of work	12 months from the date of Purchase order issue.
2	Rail and track change over and system erection and Commissioning	4 months from the date of site clearance by Department (after supply is effected). One month advance intimation will be given by Department.
3	Demonstration	2 months from the date of acceptance and clearance by department

6 LIQUIDATED DAMAGES

In the event of the Supplier failing to complete the work within the delivery period specified in the contract agreement or in extension agreed thereto, Department shall reserve the right to recover from the Supplier as liquidated damages, a sum of **0.5** percentage per week or part thereof of the undelivered portion of the total contract price of equipment or work. However, the total liquidated damages shall not exceed **10.0** percentage of the total Contract price. The LD reckoning date shall be 6 months from the acceptance of Purchase order for supply portion and 6 months from the date of site clearance for erection & commissioning and Demonstration portion of the contract price.

7 TERMS OF PAYMENTS

Department will provide advance against submission of bank guarantee for an equal amount.

7.1 TERMS OF PAYMENTS:

FOR SUPPLY PORTION OF Rails, change over system, rail clips, resilient pads, fish plates etc.

- 7.1.1 20 % of supply cost as an advance against submission bank guarantee (Format Annexure-V) for an equal amount of supply cost
- 7.1.2 70 % of supply cost after items receipt at site.
- 7.1.3 10 % of supply cost after acceptance by Department and against submission of Performance bank guarantee of equal amount for a period of one year.

7.2 FOR ERECTION, TESTING AND COMMISSIONING

- 7.2.1 20 % of erection cost as mobilisation advance after mobilisation at site & against submission of bank guarantee (Format Annexure-V).
- 7.2.2 70 % of erection cost against pro-rata progress at site on monthly basis. Measurement of work will be based on the methodology/ procedure indicated in the proposal.
- 7.2.3 10% after successful commissioning and acceptance by Department of equipment and system covered under contract and against submission of performance bank guarantee of equal amount valid for guarantee period.

7.3 GENERAL

- 7.3.1 The performance bank guarantee furnished shall be unconditional and irrevocable and from a Nationalised/scheduled bank. Refer Annexure V.
- 7.3.2 For site work (i.e. erection work), contractor will be eligible for one payment per month.
- 7.3.3 The contractor has to furnish a performance Bank Guarantee as per proforma for 10 % value of the contract towards performance of the plant.
- 7.1.1 All the payments due to the Contractor shall be paid in Indian currency and by crossed "Account Payee" cheque sent to the registered office of the Contractor. All the cheques drawn shall be payable at the office of the Department's bankers and in no case will the Department be responsible if the cheque is misappropriated or other wise lost or stolen.
- 7.1.2 Bidders can submit the banker details and payments can also be made through ECS.

7.2 TIME LIMIT FOR PAYMENT OF FINAL BILL

The final bill shall be submitted by the Contractor within 90 days of completion of the works. No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.

8 ORIGIN OF GOODS AND SERVICES

The bidder shall mention in their bids the origin of the goods and ancillary services being supplied under this contract. The origin means the place where the goods are manufactured or from where ancillary services are supplied.

9 DEFECT LIABILITY PERIOD

The defect liability period for the works unless otherwise specified shall be twelve (12) months from the date of commissioning of plant and acceptance by Department and the Contractor shall at his own cost and initiative correct, repair and / or rectify any / all defect in the design, materials, workmanship during this period at his own expenses.

10 EXECUTION OF WORK:

10.1 GENERAL CONDITIONS OF EXECUTION:

- 10.1.1 The work specified in the contract shall be performed to the highest standards of workmanship and shall be strictly in accordance with the technical specifications of the contract.
- 10.1.2 During manufacture, the Department's Representative(s) vide Clause 1.6 shall be entitled, whenever he (they) observe(s) that any material or semi-finished or finished items does not conform with the required specifications, to place, or to cause to be placed, an embargo on the use or incorporation of these items in an assembly. The suspended or rejected items shall be corrected, improved or replaced as may be necessary to meet specification requirements.
- 10.1.3 The performance of this inspection in no way affects the responsibility of the Contractor nor does it restrict the right of the Department or of the inspecting authority acting on its behalf:

10.2 TRANSFER OF CONTRACT:

The contractor shall not, unless prior authorisation has been obtained from the Department, transfer his contract either in whole or in part, use it as capital to float a company, nor set up an association with another company for its fulfilment.

10.3 SCOPE OF CONTRACT:

The scope of work shall be as specified in the Section B of the proposal.

The specifications of the Contract and the accompanying drawings are intended to describe and provide for a finished piece of work. Work executed shall be complete in all respects / details, even though every item necessarily involved is not particularly mentioned. The Contractor is required to provide all labour, materials and equipment necessary for the completion of entire work described as per schedule. The Contractor shall execute the work in every respect in accordance with the Contract and in accordance with the directions and to the satisfaction of Department / Consultant and the manufacturers'

representatives, where their services have been provided by Department.

10.4 CONTRACT / PURCHASE ORDER - INTERPRETATION

- 10.4.1 The Contract / Purchase Order conveys the final agreement between Department and Contractor on the terms and conditions and is a complete and exclusive statement of the terms of their agreement.
- 10.4.2 In the event of conflicts between the 'General Terms & Conditions of Contract for Supply' & erection' and 'the specifications, drawings and documents furnished by Department/Consultant for supply and installation of equipment', the latter shall govern.
- 10.4.3 If any of the provisions of Contractor's proposal or other correspondence is in conflict with the terms and conditions of the Contract, the latter shall govern.

10.5 DEPARTMENT'S Instructions

Department / Consultant may, in their absolute discretion, from time to time, issue further drawings / sketches and / or written instructions, details, directions and explanations, which are collectively referred to as "DEPARTMENT'S INSTRUCTIONS", in regard to:

- (a) Any additional drawings and explanations to exhibit or illustrate details.
- (b) The variation or modification of the design, quality or quantity of work or the additions or omission or substitution of any work.
- (c) Any discrepancy in the drawings / or between the Schedule of Quantities and / or Specifications.
- (d) Removal from the site of any material brought thereon by Contractor and the substitution of any other material thereof.
- (e) Removal and / or re-execution of any work executed by Contractor, which in the opinion of the Engineer is not in conformity with the specification.
- (f) Dismissal from the work of any persons employed thereupon with justifiable reasons.
- (g) Opening up of any covered work for inspection.
- (h) Amending and making good of any defects.

10.6 COMPLIANCE WITH DEPARTMENT'S INSTRUCTIONS

- 10.6.1 Contractor shall comply with and duly execute any work covered in such ' Department 's Instruction's' which are given in writing.
- 10.6.2 If compliance with the ' Department 's Instructions' involves change in scope of work beyond the contractual terms and if it has commercial implications, Department & contractor will settle the commercial issues due to the said changes at a mutually agreed price adjustments. Department will also grant extension in delivery / completion period, if required, due to the said extra work.

- 10.6.3 If Contractor after receipt of written notice from Department Consultant requiring compliance, with such further drawings and / or 'Department's Instruction' fails to comply to start with the same within seven days, Department or Consultant may employ and pay other agencies to execute any such work whatsoever, as may be necessary, and all costs incurred in connections therewith will be recoverable from Contractor. The Contractor, however, will not be held responsible for the quality or warranty of such work executed under, Department's agency.
- 10.6.4 Contractor shall not be relieved of his obligations under the Contract, including but not limited to, his warranty obligations stated herein, by incorporating Department/ Consultant's design & fabrication comments into the plant or equipment ordered under the Contract.

10.7 RIGHT OF DEPARTMENT / CONSULTANT

- 10.7.1 Department / Consultant have right to give Department's Instructions as stated in clause 10.5 above for Contractor to comply as outlined in clause 10.6 above.
- 10.7.2 Department / Consultant have a right to interpret and explain & illustrate drawings, specifications and correcting of any errors or omissions or issue any additional drawings and explanation. Department's / Consultant's instructions will be final and binding on the Contractor.
- 10.7.3 Department / Consultant have a right to direct / modify the manner in which all work under the CONTRACT is to be conducted, in so far as it may be necessary to secure the safe and proper progress and the specified quality of the work to the satisfaction and approval of Department / Consultant.
- 10.7.4 Department / Consultant have a right to direct Contractor to accelerate particular work and if necessary cease work at other places. Contractor shall comply with such directions.

10.8 CONTRACTOR's OBLIGATIONS & FUNCTIONS:

10.8.1 Specification And Drawings

The Contractor shall execute the basic, detailed design and engineering works in compliance with the provisions of CONTRACT, good engineering practices and codal requirements.

10.8.2 Approval of Technical Documents / Drawings

Contractor shall prepare and submit to Department / Consultant for approval following documents and drawings:

- (a) Technical literatures, data sheets, designs & calculation, drawings of equipment/ system / Plant & machinery supplied by him.
- (b) Quality assurance plan.
- (c) Layout drawings.
- (d) Work programme.

- (e) Dispatch and Erection Sequence Schedule (DESS) along with erection drawings.

No activity shall be executed unless Department's / Consultant's approval is obtained. The above documents / drawings shall be submitted in a format approved by Department / Consultant. Quality Assurance Plan shall be strictly in accordance with Quality Control Manual and Formats to be provided after the award of CONTRACT. Quality Control Manual and Formats are available for scrutiny at the Consultant's office.

10.8.3 Design & Supply of Plant, Equipment

Contractor shall design, manufacture / procure and supply the plant / equipment in accordance with the technical specifications and Bill Of Material specified elsewhere.

All these goods or material shall be supplied or used shall be new and of first quality. Where imported or partly imported goods or material are offered or intended to be used, the fact must be specifically stated and bought to the notice of Department.

10.8.4 Inspection And Testing

Contractor shall at its own expenses carry out at the place of manufacture and / or at the site all such tests and / or inspections of the plant and equipment as specified. Department / Consultant may attend such tests / inspection, and Department/ Consultant will bear all cost incurred in attending such test. If any plant or equipment fails to pass such inspection / tests, Contractor after rectifying defects or replacing the equipment shall repeat the test.

10.8.5 Delivery And Storage

Despatch Instructions given in the Contract shall be strictly followed. Failure to comply with instructions of the contract may result in delay in payment of Invoice

The Contractor shall be responsible for transporting all the plant equipment to site, unloading and storage. No plant equipment shall be delivered without obtaining dispatch clearance from Department. All the plant equipment shall be properly packed to avoid any damage during transportation / handling / storage. The plant and equipment received at site shall be stored at a place assigned for this purpose. Contractor shall take proper care while storing the equipment and shall provide watch and ward at his own cost.

10.8.6 INSTALLATION

9.1.1 General

- (a) Contractor's staff shall include adequate numbers of competent erection engineer with proven suitable experience on similar works to supervise the erection works and sufficient skilled, unskilled and semiskilled labour to ensure completion of work in time.

- (b) Contractor's erection staff will arrive on site on date agreed by Department / Consultant. Prior to proceeding to work Contractor shall however first ensure that required/sufficient part of his supply has arrived at site.
- (c) Erection of plant may be phased in such a manner so as not to obstruct the work being done by Other Contractor's and / or operating staff who may be present at that time.
- (d) During erection of plant, Department's / Consultant's engineer will visit site from time to time with or without Contractor's engineer to establish conformity of the work with specification. Any deviations, deficiencies or evidence of unsatisfactory workmanship shall be corrected as instructed by Department / Consultant.
- (e) Contractor shall carry out work in a true professional manner and strictly adhere to the approved drawings. Any damage caused by Contractor during erection to new or existing plant or building shall be made good at no extra cost to Department.

10.8.7 Setting Out, Levelling and Grouting of Machinery / Equipment

- (a) Contractor shall check the civil works where the plant is to be erected in advance for their correctness / conformity to the approved drawings for erection of plant with respect to their lines, levels, pockets, openings, cut outs etc. and shall notify Department / Consultant of any major deviation.
- (b) Contractor shall mark precisely the centrelines and datum reference on civil works where the plant is to be erected with reference to benchmark given by Civil Contractor. Any minor adjustment necessary to structure (on which equipment is to be erected) for making them plumb and level shall be carried out by Contractor at his cost.
- (c) All the grout for equipment shall be carried out using non-shrinkable grout (shrink comp 20 or equivalent). Surfaces receiving grout shall be prepared to receive grout. All block outs for pipes (puddle pipes), sleeves etc. shall be grouted by using cement concrete of same grade as that of the parent structure. All associated civil works such as cutting of re-bar, chipping or dressing of foundation or widening openings in R. C. C. Work and brick work, drilling holes in concrete work or brick work shall be carried out by Contractor at no extra cost to Department.

10.8.8 Records

Contractor shall maintain records pertaining to the quality of erection work in a format approved by Department / Consultant. Whenever erection work is complete Contractor shall offer erected plant for inspection to Department's / Consultant's engineer who along with Contractor's engineer will sign such records on acceptance.

10.8.9 Equipment Erection

- (a) Contractor shall carry out the works in accordance with the specific instructions given on the approved drawings, method statements, manufacturers' drawings / documents or as directed by Department / Consultant. Equipment shall be erected in neat workmen like manner so that they are level, plumb, and square and properly aligned and oriented. Tolerances shall be as established in manufactures drawings or as stipulated by Department / Consultant. No equipment shall be grouted or bolted down to the foundation, until its alignment is checked and found acceptable by Department / Consultant.
- (b) Contractor shall provide all supervision, labour, tools, machines, cranes, equipment's, scaffolding, rigging material and incidental material such as bolts, wedges, anchors, concrete inserts, grout material etc. required to complete the works. Contractor shall also provide at his own cost all such consumables like oxygen - acetylene gas welding rods, grinding wheels, temporary supports, shims etc. required to complete work. Contractor shall also provide first fill of lubricants, oil, grease etc. all the equipment supplied by him.
- (c) Contractor shall take utmost care while handling instruments, delicate equipment, panels etc. and protect all such equipment on erection.

10.9 SAFETY

Contractor shall follow the safety regulations / codes or safety instructions issued by DEPARTMENT / CONSULTANT and shall take necessary measures at his own cost.

10.10 SITE facilities and ADMINISTRATION

Department will provide following facilities in good faith at terms indicated hereunder. No claims, whatsoever arising out of use, misuse or failure of these facilities will be entertained.

10.10.1 Space for Site Office & Storage

Department will provide at site, free of cost, reasonable open space for contractor's site office & store. It will be Contractor's responsibility to construct office & store at his own cost. After completion of work, Contractor shall demolish/ dismantle the office/ store constructed by him within one month & give levelled open space to Department.

10.10.2 Erection & Construction power:

Reasonable quality of normal Construction power will be made available at one point (415V, 3 phase, 50 Hz) **on chargeable basis** on the prevailing rates based on APGENCO. However onward distribution shall be by Contractor. Installation of necessary energy meters, switchgear & distribution system, etc. for Construction power in a safe manner in strict conformity with local rules & regulations will be responsibility of the Contractor.

During non-availability of power, Contractor shall make his own arrangement of alternate power source at his own cost.

10.10.3 Watch and ward and Lighting

Contractor shall provide and maintain at his own cost security and proper lighting facilities at his office and erection work.

10.10.4 Work Rules

No work shall be carried out during night or public holidays unless a written permission is obtained from DEPARTMENT / CONSULTANT.

10.10.5 Site Clearance

Upon completion of work, Contractor shall remove all his equipment and material from the site within one month or time mutually agreed. Contractor at all times shall keep site in clean condition and remove all unwanted material at regular intervals. In case contractor fails to remove all his equipment and material within the mutually agreed time it is deemed that Department will arrange to remove the same at the contractor's cost besides imposing penalty for failure.

10.10.6 Accommodation

Very limited accommodation may be provided by Department to senior supervisory staff of the Contractor on chargeable basis subject to availability.

Contractor shall make his own arrangement for accommodation & canteen facility for all its staff, technicians, labour & workers. Transportation shall be arranged by Contractor at his own expenses for entire staff.

10.10.7 Medical Facilities

No medical facilities will be provided by Department at site for Contractor's site personnel. Contractor shall make his own arrangement at his own expenses for medical facilities for site personnel.

10.11 RECORD drawings and O&M MANUALS

10.11.1 Contractor shall submit 3 hard copies & one soft copy of all the approved drawings incorporating any modification / changes made during the execution of CONTRACT. All these drawings shall be marked as 'As Built'.

10.11.2 Contractor shall submit 3 hard & one soft copy of O&M manual. These manuals shall indicate weekly, monthly and yearly maintenance schedule and other instructions necessary for safe operation and maintenance of plant.

10.11.3 Submission of the drawings and manuals shall be a precondition for releasing of any final payment due to Contractor.

10.12 Work Programme

The bidder along with proposal shall give a preliminary programme. Upon award, Contractor shall prepare a detailed programme for review / approval by Department/ Consultant. Contractor as per exigencies of work shall revise and update programme periodically.

10.13 CONTRACT PRICE

10.13.1 CONTRACT price shall include all costs of manufacture of plant / equipment, shop testing, transport to site, unloading, storage, all risk coverage, erection / installation testing & evaluation & commissioning of plant including associated civil work and any other cost for proper and complete execution of the CONTRACT.

10.13.2 CONTRACT prices shall also include all travelling expenses, living expenses, salaries, overtime, benefit and any other compensation for engineers, supervisors, skilled, semiskilled workmen, watch and ward staff, labours and other staff employed by the Contractor, cost of tools and tackles required for erection and other consumable material required, and all taxes, duties, and levies as applicable on the date of submission of bid.

10.13.3 For all the contracts, contract price shall be firm & fixed.

10.13.4 Costs of all changes or variation as instructed by Department / Consultant will be added or deducted from the CONTRACT price by variation order. Such extra or reduced cost will be arrived on the basis of mutually agreed procedures / rates, for which purpose, Contractor shall assist Department / Consultant by providing all documentary evidence.

10.13.5 In the event of disagreement, Department will work out cost of variation, which will be final and binding on Contractor.

10.14 SUB-CONTRACTS:

10.14.1 Whole of the work shall not be subcontracted.

10.14.2 In any contract for separate production batches of the same nature the Contractor shall not, without prior approval of the Department, entrust any such production batches to a sub-contractor.

10.14.3 Unless otherwise provided in the contract, the Contractor shall, with a view either to the acquisition or manufacture of components or intermediate products to be incorporated in the supply or for the execution of certain manufacturing processes required for the supply, submit for the approval of the Department the general pattern of sub-contracts to be placed with third parties. The Department will review and grant approval for the placing of sub-contracts after main contract has been placed if these sub-contracts were specified in the statement of 'Organisation of work' accepted by the Department.

10.14.4 The contractor shall be responsible for the proper execution of any sub-contract placed by him in connection with this contract.

10.14.5 Unless otherwise authorised by the Department, the conditions of the sub-contracts shall be secured to the Department any rights provided for it under the terms of the main contract.

10.14.6 Written permission, if given, shall not relieve Contractor from his obligations under the Contract and he shall take full responsibility for all work done by Sub-Contractors. Contractor shall be responsible for transmitting pertinent data of all Contract terms and conditions to Sub-Contractors. Contractor shall furnish to Department four (4) copies of all unpriced sub-orders showing promised delivery dates and places.

11 PERFORMANCE TEST AT SITE

- a) The track system shall be tested in two stages i.e. by moving the empty bogie for checking the initial alignment and later by moving the bogie with designed load.
- b) SDSC shall arrange the bogie system for load test and the party has to be present and witness the test and qualify the track for movement and rectify any defects arising out of Rail/Track changeover system installation.

12 SPECIAL CONDITIONS

12.1 The above quantities are indicative. Department reserves the right to split the quantities/items for ordering. For installation, if some of the above parts are not in the erection contractor's scope, it will be supplied as free issue material by department. However, the responsibility for meeting the track tolerances lies with the erection contractor.

12.2 Necessary material handling, erection equipment, levelling equipment/instrument/welding equipment are in the scope of party.

12.3 Contractor has to check all interfaces like embedment/foundation bolts, etc. already made at site and ensure that all interfaces are matching before making starting the erection work.

12.4 If any minor work is required for installation of system, party shall do the same at no extra cost.

12.5 Whether specified elsewhere in Work Order or not, CONTRACTOR is responsible for the following from his own resources as per Contract Specifications:

12.5.1 Provide all materials, consumables, accessories, labors, supervisory personnel and all tools, tackles and equipment.

12.5.2 Arrangement of water for his own use.

- 12.5.3 Party has to make own arrangement for drawing construction power from the point source provided by department at specific locations. Construction power will be provided on chargeable basis on the prevailing rates of APGENCO.
- 12.5.4 All necessary facilities including tools, tackles, testing and measuring equipment, instruments, material handling equipment & accessories for erection, fabrication, alignment and testing of the track system shall be provided by the Contractor.
- 12.5.5 Contractor shall store the material with proper identification and in a manner so that the materials do not deteriorate due to rusting etc.
- 12.5.6 On completion of erection, the site shall be cleaned by removing all unwanted materials brought by Contractor.
- 12.5.7 For shifting and transporting of materials mobile crane and tractor trailer shall be used. No dragging shall be allowed.
- 12.5.8 Contractor shall arrange for adequate material handling equipment like truck, trailer, fork lifts, mobile crane, slings, tools and tackles for receipt, transportation, fabrication and erection of the track system.
- 12.5.9 Welding shall be carried out by only experienced and qualified welders.
- 12.5.10 Contractor shall provide all consumables like oxygen, Acetylene gas, oil, grease, kerosene, sand/emery paper, cotton waste, cotton cloth, welding rods, bolts nuts, etc. as required for fabrication, erection work.
- 12.5.11 Temporary site office/site godown and/or covered space shall be constructed and maintained by the CONTRACTOR at his own cost.
- 12.5.12 CONTRACTOR shall also provide watch and ward and adequate lighting to be maintained by him, for the work under his scope. Department is not responsible for any loss/ damage to the material.

13 BID QUALIFICATION CRITERIA FOR SUPPLY AND COMMISSIONING OF RAILS AND TRACK CHANGE OVER SYSTEM

Bidders who are qualifying / meeting following Technical and financial criteria are eligible to participate in the bid. Bidder shall furnish all the information mentioned in the criteria with documentary proof and submit along with quotation. Bids of the parties which are not meeting the following criteria will not be considered for evaluation and will be rejected without seeking any further clarifications.

13.1 Technical Qualification Requirements:

The bidder shall meet the following technical qualifying requirements and shall submit relevant certificates to establish his credentials.

- 13.1.1 The Bidder shall be an organization with long experience in having executed similar contracts for design, engineering, manufacture,

supply, erection, testing and commissioning of Rails and Track Change over Systems of similar nature.

- 13.1.2 Party shall have executed one such contract of similar nature in the last 10/15 years.

13.2 Financial Qualification Requirements:

- 13.2.1 Bidder shall have annual turnover of not less than a value of Rs. 50 crores (rupees fifty crores) per year for last three financial years ending with 31.03.2015

- 13.2.2 Firm shall have undertaken and successfully completed Single work of not less than: Rs.5 crore value of works related to high capacity tracks at least in last 05 (Five) years.

13.3 The following documents shall be submitted along with the Techno-commercial bid for prequalification of Bidder.

- 13.3.1 Firm establishment certificate and nature of work.

- 13.3.2 Bid submission letter with authorised signatory.

- 13.3.3 Details of work of similar type completed during the last seven years ending with 31.03.2015 with purchase order copies.

- 13.3.4 Satisfactory work Completion certificates from the clients, with the work order copies.

- 13.3.5 Documentary evidence (Technical details &. drawings) for fulfilling special technical conditions

- 13.3.6 Copy of audited Balance Sheets for last three years showing turn over, profit and loss.

- 13.3.7 IT / TDS certificates for last three years.

- 13.3.8 Current Solvency Certificate. (i.e. Over draft/Guarantee line/global security from banks)

- 13.3.9 List of value, and work order copies of total projects under Execution with purchase order name and address.

- 13.3.10 List of personnel with qualification &. experience in the firm in the areas of design, production, quality, safety, administration etc.,

- 13.3.11 Scheme of erection showing the step by step procedure for erecting the rail track like method of marking the rail gauge, welding the clips, positioning the rails, method proposed to form curvature rails, tightening the clips. Details of equipment and instruments proposed to be used for this work for erection, welding and achieving the tolerance.

13.4 Bid Selection Procedure and Process of Pre-Qualification

- 13.4.1 Short listing based on documents submitted, satisfying the all eligibility criteria given above by the firm or individual along with their Bid / application. (Non-submission of any document as given in above list within stipulated time leads to rejection of Bid).
- 13.4.2 Subsequently Bidder's competency, their technical achievements and financial status will be evaluated suitable for this project. Feedbacks from Bidder's clients will be verified.
- 13.4.3 Visit to sites/ by technical team (ISRO or Third party) where Bidder has established above mentioned capacity of rails if required.
- 13.4.4 If required, visit will be made to their factory/ firm by technical team (ISRO or third party) for accessing the capability of manufacturer.
- 13.4.5 Scrutiny of all technical specification and supply conditions mentioned in techno-commercial bid.

SECTION-B

SCOPE OF WORK

1. Introduction:

Second vehicle Assembly Building (SVAB) is being realized at Satish Dhawan Space Centre SHAR (SDSC SHAR), Sriharikota, 100 km north of Chennai. SVAB is a 96 m tall concrete building housing various platforms, doors, EOT crane, assembly towers, etc. for integration of launch vehicles. After completion of launch vehicle assembly over Mobile Launch Pedestal (MLP) on a bogie, it is hauled to either Second Launch Pad (SLP) or Third Launch Pad (TLP) for launch. A curved track connects the SVAB to SLP and TLP. The bogie moves on a twin rail track system of MRS 85/ CR 171 rails over concrete foundation. Maximum weight of the payload to be hauled is about 2400 t. MLP + bogie is shown in the Section-C sketch-1. The layout of the SVAB with respect to SLP & TLP is shown in Section-C sketch-2. Foundation of the existing SLP track is shown in Section-C sketch-3.

The fully integrated launch vehicle has to be moved from SVAB to Second Launchpad or Third Launch Pad on a Mobile Launch Pedestal. To meet this requirement, a sturdy track capable of taking MLP wheel loads are to be laid between SVAB and SLP. For future expansion of the track, it will be extended to the Third Launch Pad.

The track forming part of the SVAB Project is same as the existing track at the SLP. This is a twin rail track with the gauge of 14 m and distance between the rails on either side being 750 mm. The area between the rail tracks, will be paved (concrete / flexible pavement) and used for movement of the hauler for MLP traction.

2. Functional Requirements/ Specifications

- a. The rail track shall provide leveled top surface for smooth movement of Bogie carrying Mobile Launch Pedestal.
- b. The difference in levels of top surface of track due to deflection under load shall be minimum to maintain the stability of vehicle.
- c. The track shall withstand a bogie wheel load of 100 t. Wheels are of 1000 mm dia, flat tread, with single flange on the inner side of the twin rails.
- d. Centre to centre distance of twin tracks is 14.0 m and distance

between twin rails is 750 mm.

- e. Level difference across tracks between rail tops at any location is to be limited to ± 1 mm.
- f. The proposed track has to join with the existing SLP track and a suitable track changing arrangement needs to be provided for the track changeover at SLP joint and also outside SVAB –TLP joint.
- g. The track changeover system shall be simple, reliable and quick operating. A mechanism has to be provided to rearrange the track in addition to manual operation.
- h. The track proposed for SVAB is having two curved segments with a radius of curvature of 600 m at the centre of 14 m gauge. The rail clamping system and foundation shall be able to withstand side forces during wheel rubbing in curves. Also the track change-over system shall be able to withstand the load due to bogie.
- i. Total track length is about 1.817 km.
- j. The track has gradient towards Launch Pad which is at 1.46 m above the SVAB floor level. The reference height at the meeting point at existing track has to be considered while designing the slope.
- k. The existing track also has to be modified to accommodate the change-over system and its anchoring.

3. Scope of work :

The scope of work includes supply, installation and erection of rails tracks at SDSC SHAR suitable to the layout mentioned.

The scope of work has been broadly divided into the following sections:

- a. Supply of MRS 85/CR 171 rails as per the technical specifications given in section C.1.
- b. Supply of fish plates along with fasteners suitable for joining the rails as per section C.2.
- c. Supply of Weldable two part rail clips of Gantrex or Gantrail make suitable for the MRS 85/CR 171 rail as per section C.3.
- d. Supply of resilient rubber pads - Gantrail Mk 7 or equivalent as per section C.4.

- e. Design, manufacturing, supply and installation of track change-over system (Vossloh cogifer Make) - 2 sets as per section C.5.
- f. Installation of weldable two part clip, resilient rubber pads, rails, and track change-over system as per the requirements and tolerances using templates/instruments.
- g. Any repair/refurbishing/remedial work on existing track portion (where track changeover system installs) is also in the scope of work(details C-5)
- h. Erection and commissioning of straight rail track, curved rail track and changeover system as per the drawing enclosed, witnessing the smooth movement of Bogie on the track as per the tolerances in section 6. and carrying out any remedial action as part of rail erection.

SECTION-C

TECHNICAL SPECIFICATION

1. Rails:

- a. Rails to be laid : MRS 85/CR 171 (85.03 kg/m or 171 lbs/yd)
- b. Standards to meet : ASTM A-759 (Specification for carbon steel rails)
- c. Lengths : 11.887 m / 39 ft lengths
- d. Grade : Head hardened to 321 BHN minimum.
Tensile strength – 1080 to 1210 N/sq.mm
- e. Ends : 3 nos. 30 mm dia drilled bolt holes at ends for fish plates
- f. Rail joining method : Rails are to be joined using fish plates.
- g. Qty of rails (appr.) : Lump sum. However the quantity of rails assumed for the track shall be indicated in the annexure II.

Note:

- a) The length of track includes the straight path of 1100m and curved path of 720m with mean radius of 600m at 14 m gauge.
- b) The length of rails has to be calculated and quoted based on the site survey (or) rail layout enclosed, also considering the track changeover portion length.
- c) The party shall submit the method of establishing curved track with 600 m mean radius using 12 m long rails.
- d) Mill's inspection certificate as per EN 10204 shall be submitted.

2. Fish plates.

- a) Rolled Fish plates suitable for MRS 85/ CR 171 rails shall be supplied for joining the rails.
- b) Standard & dimensions: ASTM A 3.78, with 6 holes per each bar, 864 mm length, 89 mm height, min 28mm thick, 72.1 lbs/pair.
- c) Galvanized M27 x 160 mm bolts grade 8.8 with nuts and washers shall be used for fish plates to join rails.

3. Rails clips

- a) Suitable weldable galvanized two part rail clips equivalent to 9220/20/45 model of Gantrail / Gantrex for the MRS 85/ CR 171 rails shall be supplied. Rail clips shall be able to withstand the vertical (100 t) and lateral forces (10 t) generated due to the wheels. Tenderer shall submit the details of the rail clip system with

all the details like clips spacing, torque for the bolt, resilient rubber pad, maintenance procedures, etc. Detailed calculation sheet shall be submitted to clarify that the rail clip set-up proposed is meeting the lateral load requirements of the track.

- b) Rail clips shall be suitable for MRS 85 rails with 7 mm thick resilient pad under the rails.
- c) Rail clips are to be installed over the sole plate at every 600 mm interval excluding the track change-over system.
- d) The bottom piece is to be positioned at every 600 mm interval and welded to sole plate as per manufacturer's recommendation. The top piece is meant for preventing movement of rails, which is held in position with bottom plate by clamping bolts.
- e) Suitable Rail clips at the fish plate zone shall be selected according to requirement.
- f) Necessary test certificates for the supplied rail clips shall be submitted along with supply.
- g) Quantity: Lumpsum. However the quantity of rail clip sets assumed for the track shall be indicated in annexure 1

4. Resilient rubber pads

- a) Flat resilient rubber pad with steel insert of suitable capacity equivalent to MK7 and 7mm thick shall be supplied for installation below the rails.
- b) Necessary test certificates shall be submitted along with supply
- c) Quantity: Lumpsum. However the quantity of resilient pads in m lengths assumed for the track shall be indicated in the annexure 1

5. Track change-over system:

- a) Scope of work: Design, manufacture, install and test a track change-over system, Vossloh Cogifer, France make - 2 sets to meet the SVAB track requirements and per wheel load of 100 t as per model sketch No.4.
- b) The track changeover system on the existing track has to be laid on the existing RCC foundation as per sketch enclosed Sketch 03.
- c) Rail clips for track changeover system and fasteners/anchoring bolts of track changeover system has to be estimated and included with track changeover system quote.

- d) The sketch is only for illustrative purpose and actual design and supply shall be as per layout enclosed. The change-over system shall contain:
- 4 nos. of turn outs MRS 85/CR 171 - 600m mean Radius at 14 m gauge.
 - 2 nos. of diamond crossings.
 - 4 back drives.
 - 4 electrical point machines.
 - Any other accessories like Rail clips, fasteners/ anchorages of track changeover system.
- e) The track change-over system shall be reliable and sturdy. It shall meet the loading requirements of the bogie / wheels.
- f) Foundation details requirements for meeting the loads on the change-over location shall be provided.
- g) Track change-over system shall be operated by electrical drive using AC, 3 phase, 415 V, 50 Hz supply. Manual operation provision also shall be available in the change-over system.
- h) The track changeover system has to connect the existing twin track which is around 10 years old with the new track, which is included in the current scope of work. Necessary modifications to the existing track including de-commissioning and integration is included in the scope of work. The existing track layout is given in sketch no.2
- i) Party shall indicate complete layout of sole plates (56 mm thick) for the changeover system and position of foundation bolts for implementing the same by the civil construction contractor engaged by department.
- j) The removal of old rails, sole plates and fasteners/anchor bolts at required portion for installation of changeover system is the responsibility of rail erection contractor.
- k) The new sole plate supply and grouting and installation shall be done by civil contractor engaged by department. The supervision for this work and verifying the alignment is the responsibility of the rail erection contractor. Erection of changeover system including all accessories and anchorages / fasteners are part of rail erection contractor.
- l) Party shall supervise the implementation of sole plate erection so that the interface between the foundation and changeover system shall be foolproof.

- m) Design details to meet the mentioned design / service criteria shall be submitted to department for approval. Manufacturing shall be commenced only after approval of department.
- n) A detailed quality assurance plan shall be submitted along with the offer for manufacturing of the track change-over system.

6. Installation of twin rails.

- a) Bottom weldable portion of the rails clips shall be welded to the sole plate as per the template / dimensions & welding scheme recommended by rail clip manufacturer.
- b) Resilient rubber pads shall be installed over the sole plates. It shall be ensured that sole plate top surface is free from sand or foreign matter before installation of resilient pad.
- c) Rail shall be installed over the resilient pad and top portion of the rail clip shall be installed and tightened with specified torque.
- d) Old rails removed from the existing track for installation of track change-over system shall be handed over to department.
- e) For change-over system installation, existing rails are to be trimmed / cut to suit change-over system. Trimming / cutting and joining of existing track rails to change-over system also is in the scope of the contractor. Tenderer shall indicate the method of joining old rails to change-over system in the tender.
- f) The contractor has to use certified, calibrated torque wrenches and instruments for the work.
- g) Contractor shall submit the method of achieving curved rail of 600 m radius at the centre of 14 m gauge.

7. RAIL ERECTION TOLERANCES:

Allowable tolerance for installation of rails

- a) Difference between rail tops on any two rails across the track in any location:
(+/-) 1 mm (within across bogie boundary of 14 m)

- b) Between twin rail gauge of 750 mm: (+ / -) 3mm
- c) Between rail gauge of double track 14 m: (+ / -) 5mm
- d) Deviation on rail level: (+/-) 3 mm (along the track, within bogie length of 14 m)

8. INSPECTION, TESTING AND COMMISSIONING

- a) The track system shall be tested in two stages i.e. by moving the empty bogie for checking the initial alignment and later by moving the bogie with specified load.
- b) The bogie with load shall be arranged by department and the party has to be present and witness the test. Required corrective measures for any defects arising out of rail/changeover system installation has to be attended.

9. Other conditions:

- a) Due to launches from the SLP / FLP, the work shall be stopped briefly and workers will be evacuated from the site for a period of three days. Intimation will be given about the evacuation on 10 days in advance. The frequency of launch per year is around four. Tenderer shall consider the above stoppage of work and evacuating workers in the erection and commissioning cost.
- b) Being the existing track is in use, the modification work on this stretch shall be scheduled by SDSC without affecting the track, hence, the launch activities.

SECTION-D ANNEXURES

Schedule of Price

S. No	Description	Unit	Quantity considered & unit	Cost in Rs.
1	Supply of Rails and Fish plates as per scope of work	Lump sum	Rails of _____ m Fishplates _____ pair	
2	Supply of Rail clips as per scope of work	Lump sum	Rail clips _____ sets	
3	Supply of Resilient Pads as per scope of work	Lump sum	Resilient pad _____ m	
4	Supply of Track change over system as per scope of work	Lump Sum	Change-over system <u>2 sets</u>	
5	Applicable Taxes & Duties for S.No. 1 to 4	%	---	
6	Erection & Commissioning charges for twin Rail & Track change over System as per scope of work	Lump sum	Lump sum	
7	Service Tax on S.No.6	%	---	

(SIGNATURE OF SUPPLIER)

Make / Model of Sub – Systems

S. No	Description	Make/ Model	Make/ Model proposed by Party
1	Supply of Rails and Fish plates as per scope of work	Rail MRS85/CR171	
2	Supply of Rail clips as per scope of work	9220/20/45 model of Gantrail / Gantrex for the MRS 85/ CR 171 rails	
3	Supply of Resilient Pads as per scope of work	MK7 Suitable for MRS85 Rails	
4	Supply of Track change over system as per scope of work	Make: Vossloh Cogifer, France	

Check List

S. No	Description	Response by Supplier
1.	The detailed scope of work and technical specifications are under stood and price was quoted accordingly	Yes / No
2.	All the general conditions of the contract as per the section-A are acceptable.	Yes / No
3.	In case of some general conditions of the contract as per the section-A are not acceptable, deviation statement is to be enclosed as per Annexure-III	Yes / No
4.	Un-priced copy of schedule of prices, payment schedule is enclosed in the techno-commercial bid.	Yes / No
5.	Taxes are quoted in the price bid (Including taxes for parts made in India, if any with cost break-up)	Yes / No
6.	List of essential spares and material which are not mentioned in scope of work are enclosed to the priced bid with unit rate	Yes / No
7.	Cost is quoted as per the price bid format	Yes / No
8.	Delivery schedule is acceptable. If not, the deviation is brought-out in the deviation statement (Annexure-IV)	Yes / No
9.	Terms of payment are acceptable. If not, the deviation is brought-out in the deviation statement (Annexure-IV)	Yes / No
10.	Liquidated damages clause is acceptable. If not, the deviation is brought-out in the deviation statement (Annexure-IV)	Yes / No

(SIGNATURE OF SUPPLIER)

EXCEPTIONS AND DEVIATIONS (FORM-J)

In line with Tender Document, supplier may stipulate Exceptions and deviations to the Proposal conditions if considered unavoidable.

SL. NO	Reference in Specification		Dept. Spécification	Offered Spécification	DEVIATION
	PAGE NO	CLAUSE NO			

NOTE :

Only deviations are to be written in this FORM-J.

Any deviations taken by the Bidder to the stipulations of the tender document shall be brought out strictly as per this format and enclosed along with the bid.

Any deviations not brought out as per this Proforma (FORM-J) and written elsewhere in the Proposal document shall not be recognized and the same is treated as null and void.

Any willful attempt by the Tenderer to camouflage the deviations by giving them in the covering letter or in any other documents that are enclosed may render the Bid itself non-responsive.

(SIGNATURE OF SUPPLIER)

FORMAT FOR ADVANCE PAYMENT BANK GUARANTEE

ON Rs. 100/- STAMP PAPER

In consideration of President of India, (hereinafter called "The Government, Department of Space, "SDSC SHAR" Sriharikota – 524 124) having agreed to grant an advance of Rs. _____ (Rupees _____) to M/S _____

(Hereinafter called "The said Contractor/Supplier") under the terms and conditions of P.O. No: _____ Dt _____ made between SDSC SHAR and M/S _____ for supply of _____ (hereinafter called "The said Agreement"), on production of Bank Guarantee for Rs. _____ (Rupees _____) we, M/S (hereinafter referred to as "The Bank") do hereby undertake to pay to SDSC SHAR an amount of Rs. _____ (Rupees _____) against any loss or damage caused to or suffered or would be caused to or suffered by SDSC SHAR by reason of any breach by the said Contractor/Supplier of the terms and conditions contained in the said agreement.

We, _____ (Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from SDSC SHAR stating that the amount claimed is due by way of loss or damage caused of any breach by the said Contractor(s)/Supplier(s) of any of the terms or conditions contained in the said agreement or by reason of the Contractor(s)/Supplier(s) failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rupees _____)

We, _____ (Bank) further agree that the guarantee herein contained shall remain in force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of SDSC SHAR under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till SDSC SHAR certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s)/Supplier(s) and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before _____ we shall be discharged from all liability under this guarantee thereafter.

We, _____ (Bank) further agree with SDSC SHAR that SDSC SHAR shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s)/Supplier(s) from time to time or to postpone by SDSC SHAR against the said Contractor(s)/Supplier(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Company or for any forbearance, act or omission on the part of SDSC SHAR or any indulgence by SDSC SHAR to the said Contractor(s)/Supplier(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

We, _____ (Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of SDSC SHAR in writing.

Notwithstanding anything stated above, our liability under this guarantee is restricted to Rs. _____ (Rupees _____). Our Guarantee shall remain in force until _____. Unless a demand in writing for claim in force under this agreement is lodged with us before that date i.e., on or before _____ (on or before 6 months after lapse of validity) all your rights under the said guarantee shall be forfeited and we shall be released and discharged from all liabilities thereunder.

For (Bank)

Date: _____

FORMAT FOR PERFORMANCE BANK GUARANTEE

On Rs. 100/- STAMP PAPER

BANK GUARANTEE NO: _____ DATE: _____

WHEREAS M/S _____ (Hereinafter called the "CONTRACTOR") have entered into a Contract with the President of India represented by HEAD, PURCHASE & STORES DIVISION, SDSC SHAR, ISRO, DEPARTMENT OF SPACE, GOVERNMENT OF INDIA, SRIHARIKOTA – 524 124, NELLORE DIST. (A.P.), INDIA (hereinafter called the "PURCHASER") being contract No: _____ Dated: _____ of the Purchaser, for supply of systems/components for order value of Rs. _____.

AND WHEREAS under the terms of the said Contract, the Contractor is to furnish the Purchaser with Bank Guarantee in the amount of Ten Percent (10%) of the total of the contract price for the due performance of the contract and fulfillment of the terms thereof.

AND WHEREAS the contractor has requested us _____ (Name of the Bank) having its registered office at _____ to guarantee the due amount by the Contractor of the aforesaid amount to the Purchaser.

Now, we _____ (Name of the Bank) hereby agree unequivocally to pay within 48 hours on demand in writing from the Purchaser or any officer authorised by it in this behalf and without demur, any amount upto and not exceeding Rs. _____ to the Purchaser on behalf of the Contractor.

THIS guarantee shall be valid and binding on us _____ (Name of the Bank) for a period of 12 Months from the date of testing and handing over of the equipment to the Purchaser at Purchaser's site and shall not be terminable or affected by notice of any change in the constitution of the Bank or of the firm of Contractor's or by _____ any other reason whatsoever and _____ (Name of the Bank) liability hereunder shall not be impaired or discharged by any extension of time or variations or alterations made, given, conceded, agreed to with or without knowledge or consent, by or between the parties to the said written contract.

Our _____ (Name of the Bank) liability under guarantee is restricted to Rs. _____ only. Our guarantee shall remain in force till the expiry of 12 (twelve) months from the date on which the Purchaser formally accepted the said equipment. Unless a claim under this guarantee is filed against us within six months from the date of expiry of the said 12 (twelve) months, all the rights of the Purchaser under this guarantee shall be forfeited and we shall be relieved and discharged from all Liability thereunder.

In witness whereof, we the _____ (Name of the Bank) have executed this.

This the _____ day of _____ 19 _____.

Signed :

For the: _____
(Name of the Bank)

Witness:

- 1.
- 2.

FORMAT FOR BANK GUARANTEE FOR SECURITY DEPOSIT

(On non-judicial stamp paper of appropriate value)

WHEREAS on the day of M/s.
having registered office at (hereinafter called "The Contractor")
entered into a Contract No dated (hereinafter referred to as
the "Contract") with the President of India acting through the
(hereinafter to as "The Government") for the supply of

And whereas under the terms and conditions of the Contract, an amount of (Rupees only) towards
Security Deposit in the form of a Bank Guarantee is to be furnished by the Contractor to the Government, for
due performance of the Contract/Order. In the event of non-execution of the Contract/Order by the Contractor,
in line with the Contract/Order terms, the Security Deposit shall be forfeited by the Contractor.

Now, we the (Bank) hereby agree and undertake to pay on demand and without any demur to the Accounts
Officer, (name of Centre/Unit), on behalf of the Government (hereinafter referred as the "Accounts Officer"), a
sum not exceeding _____ /- (Rupees only) on unsatisfactory performance of the Contract by the
Contractor.

And we hereby further agree that the decision of the Accounts Officer as to whether the Contractor has
committed any breach of any terms and conditions of the Contract or not and as to the amount of damages by
the said Accounts Officer, as damage or loss suffered by the Government on account of such breach, would be
final and binding on us (the Bank).

And, we (the Bank) hereby agree that our liability herein under shall not be discharged by virtue
of any agreement between the Government and the Contractor whether with or without our knowledge and/or
consent or by reason of the Government showing any indulgence or forbearance to the Contractor whether as to
payment, time, performance or any other matter whatsoever relating to the Contract which, but for this
provision, would amount to discharge of the surety under the law.

Our Guarantee shall remain in force until (six months from the date
of issue) or until completion of the Contract and unless a claim under the guarantee is lodged with us
within six months from the date of expiry of this Guarantee, all rights of the Government under the guarantee
shall be forfeited and we shall be relieved and discharged from all our liabilities hereunder.

Place: _____

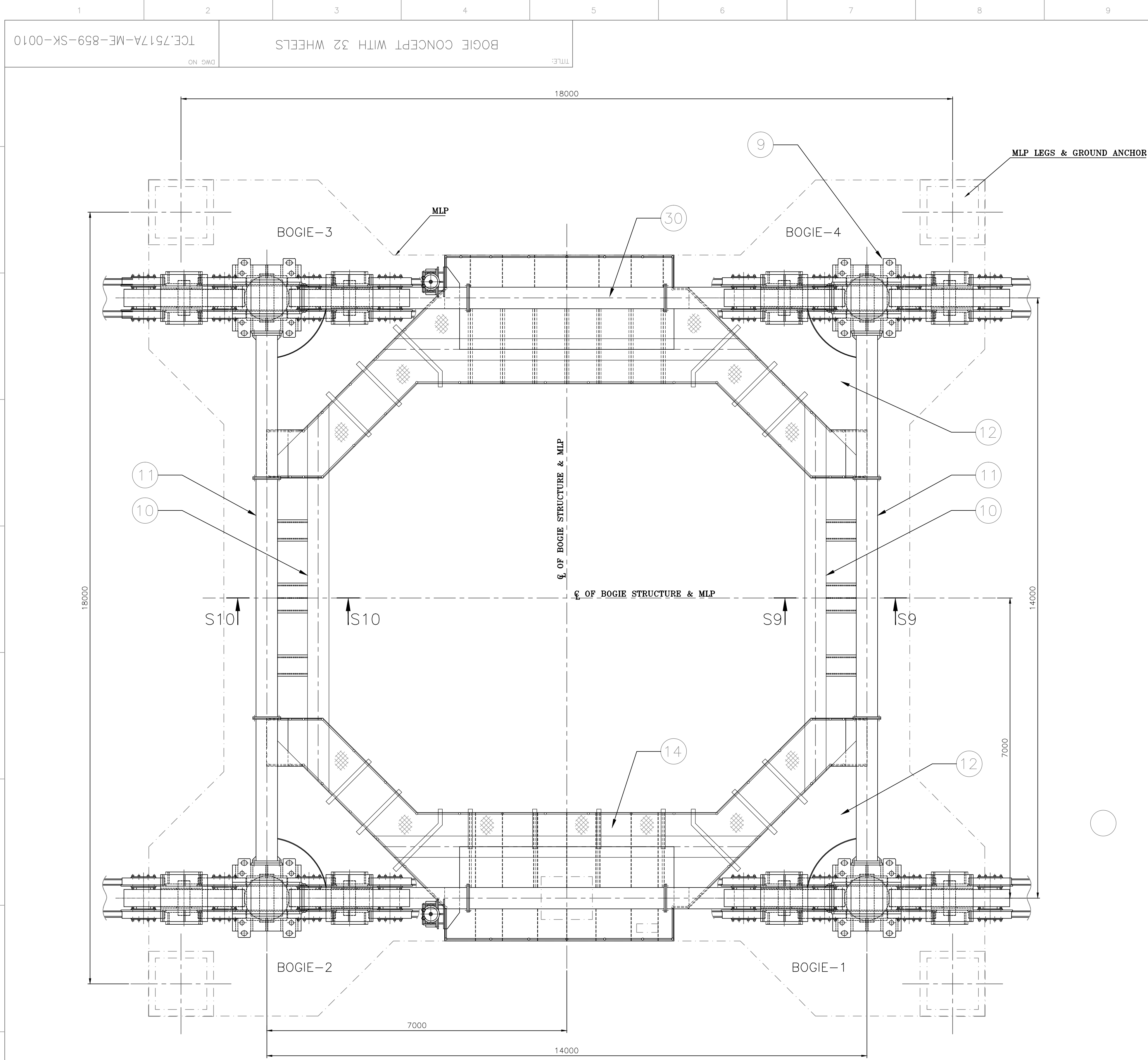
Date: _____

(Signature of the Authorized Officer of the Bank)

(Name and Designation of the officer)
Seal

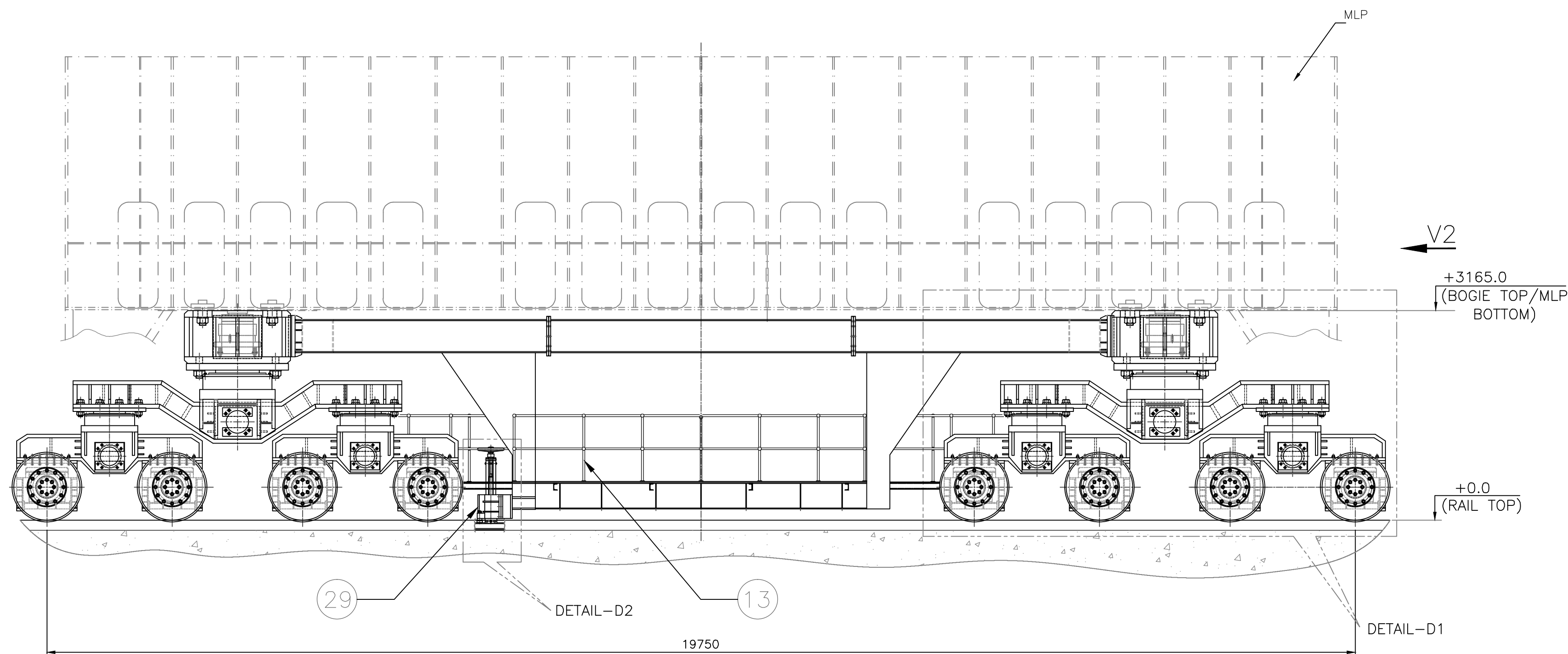
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Name & address of the Branch with Phone / Fax Nos.

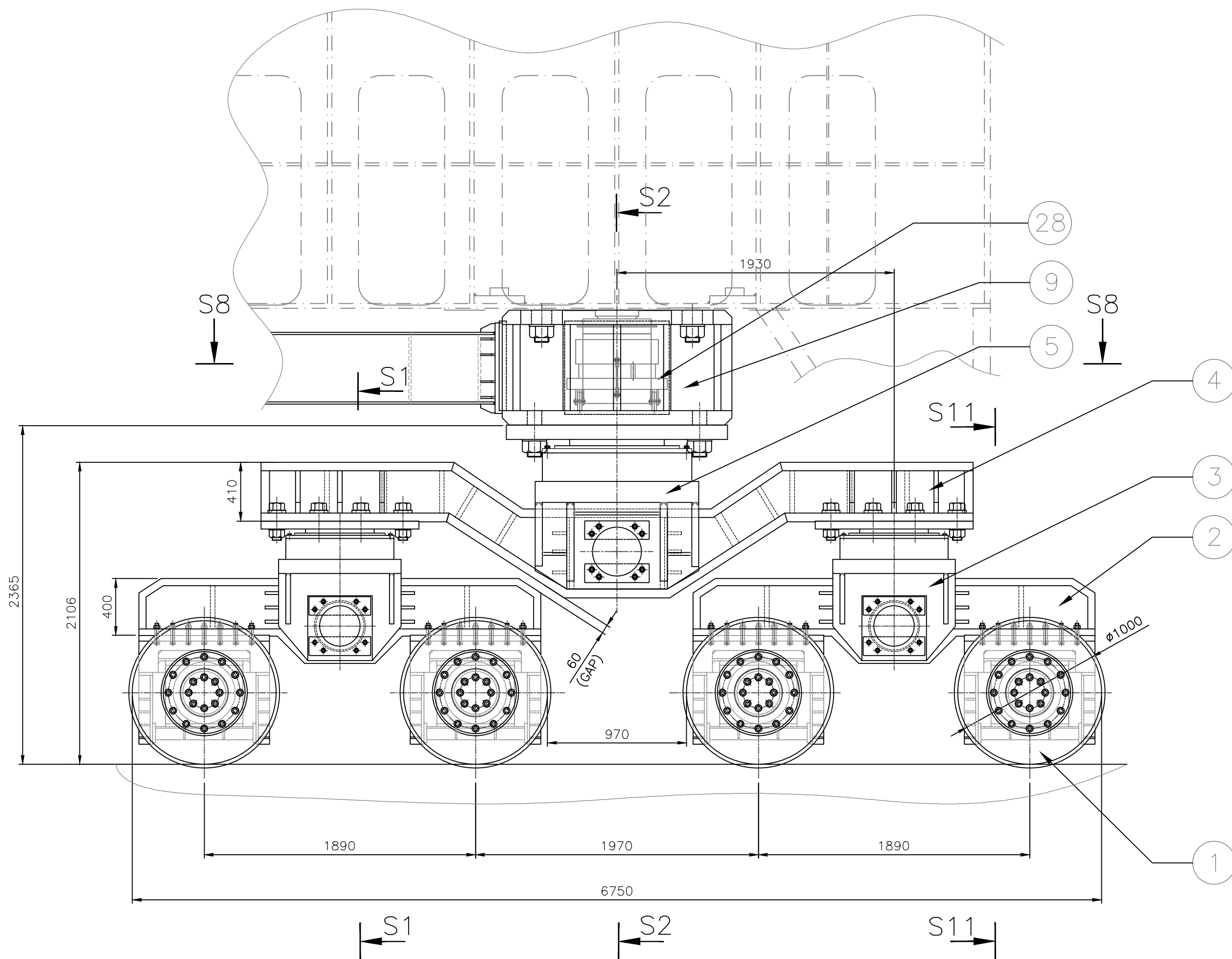


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V1

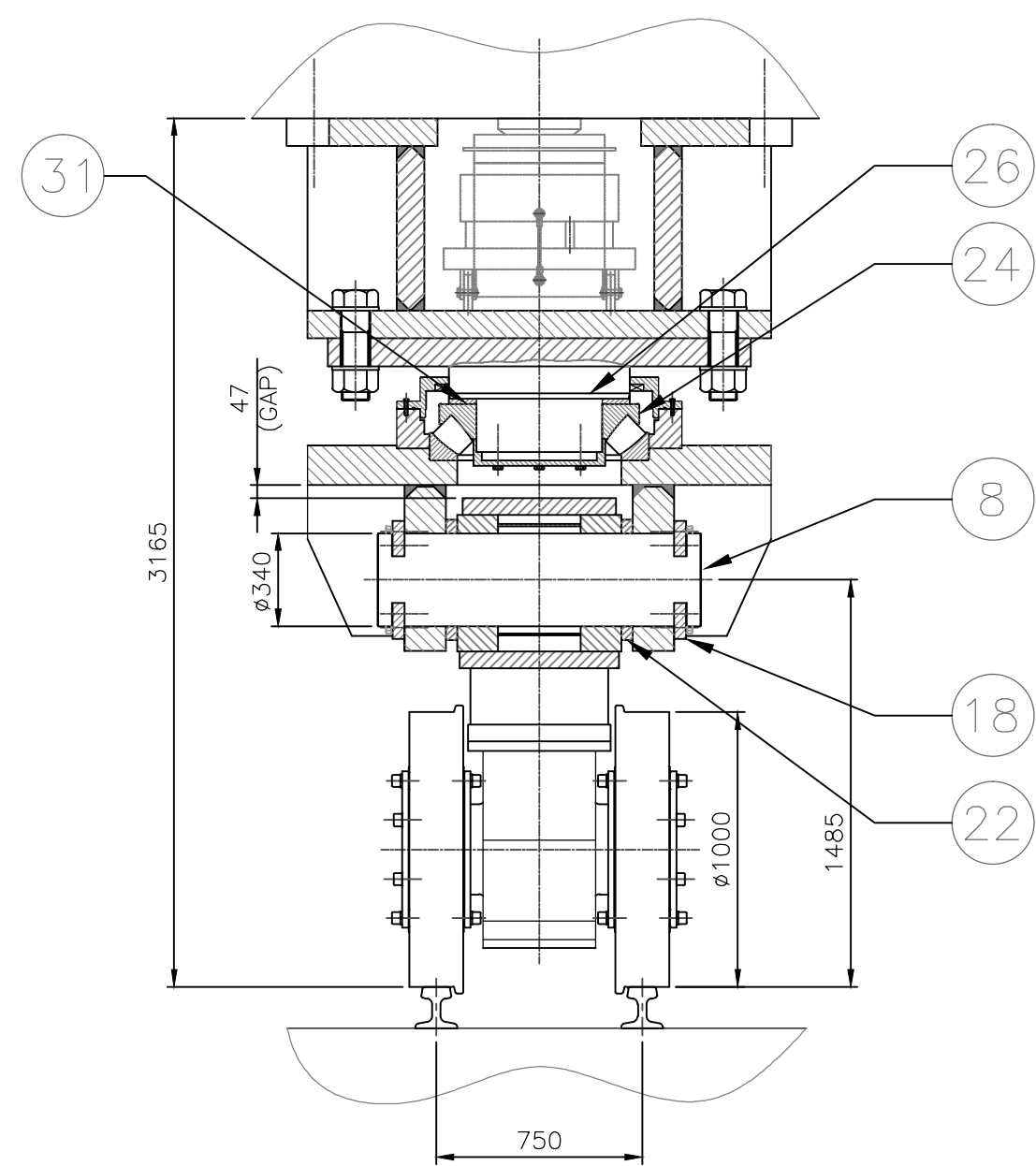
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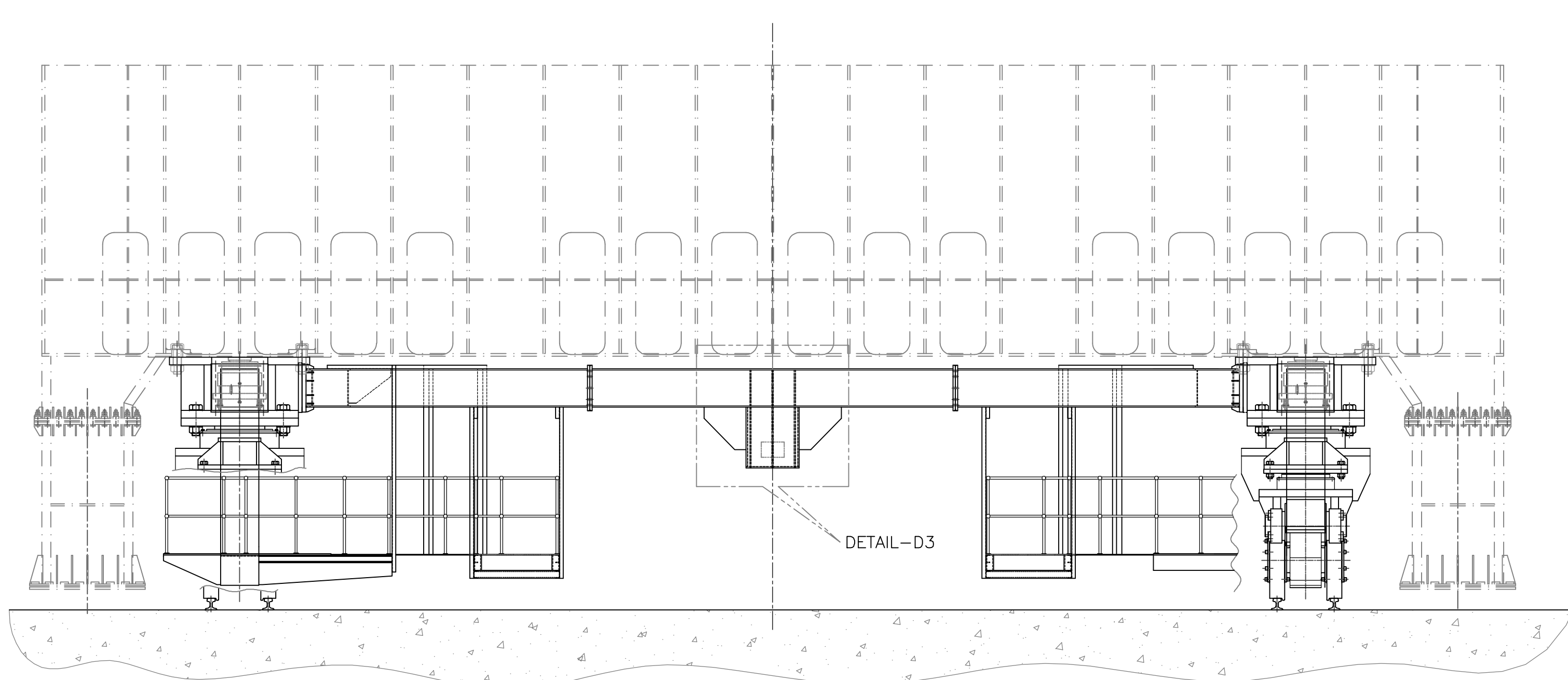
VIEW-V1



DETAIL D1
(SCALE 1:25)



SECTION S2S2
(SCALE 1:25)



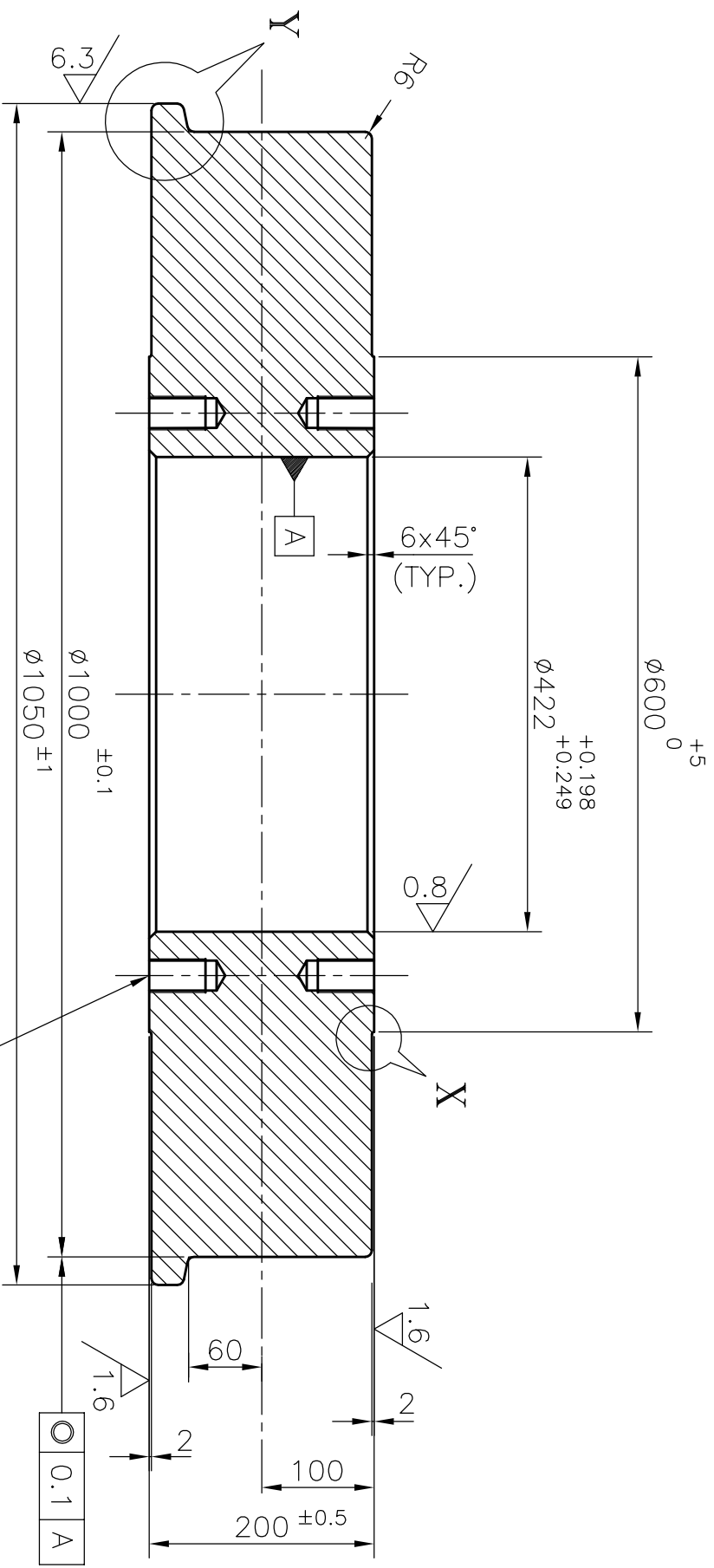
VIEW-V2

BILL OF MATERIAL			
PART NO.	DESCRIPTION	QTY	REMARKS
1	WHEEL	32	
2	LOWER BALANCER	8	
3	YOKE FOR LOWER BALANCER	8	
4	UPPER BALANCER	4	
5	YOKE FOR UPPER BALANCER	4	
6	AXLE	16	
7	LOWER HINGE PIN	8	
8	UPPER HINGE PIN	4	
9	SPACER BLOCK	4	
10	CROSS BEAM	4	
11	CONNECTING BEAM (TYPE 1)	2	
12	INTERCONNECTING STRUCTURE	4	
13	HANDRAIL	1	
14	MAINTENANCE PLATFORM	1	
15	TOP OSCILLATING BLOCK	16	
16	BOTTOM OSCILLATING BLOCK	16	
17	DOUBLE ROW TAPER ROLLER BEARING TIMKEN MAKE IDO TYPE HM256849-81 OD	32	
18	RETAINER PLATE FOR UPPER HINGE PIN	16	
19	RETAINER PLATE FOR LOWER HINGE PIN	32	
20	BEARING RETAINER (TYPE-1)	32	
21	BEARING RETAINER (TYPE-2)	32	
22	SPACER FOR UPPER HINGE PIN	8	
23	SPACER FOR LOWER HINGE PIN	16	
24	SPHERICAL ROLLER THRUST BEARING SKF TYPE 29492 E	4	
25	SPHERICAL ROLLER THRUST BEARING SKF TYPE 29464 E	8	
26	SHAFT FOR UPPER YOKE	4	
27	SHAFT FOR BOTTOM YOKE	8	
28	HYDRAULIC JACK EUROPRESS TYPE	4	
29	RAIL CLAMP ROMER TYPE VZM-2	2	
30	CONNECTING BEAM (TYPE 2)	2	
31	ADJUSTMENT WASHER (TYPE 1)	4	
32	ADJUSTMENT WASHER (TYPE 2)	8	
33	RUBBER CUSHIONING PAD	16	
34	AXLE RETAINER	16	

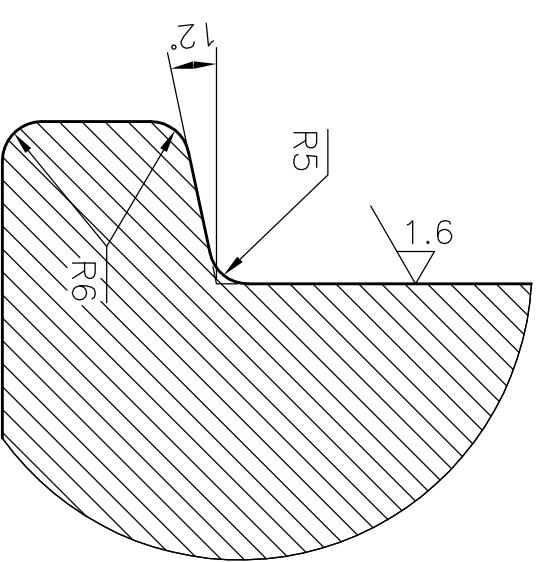
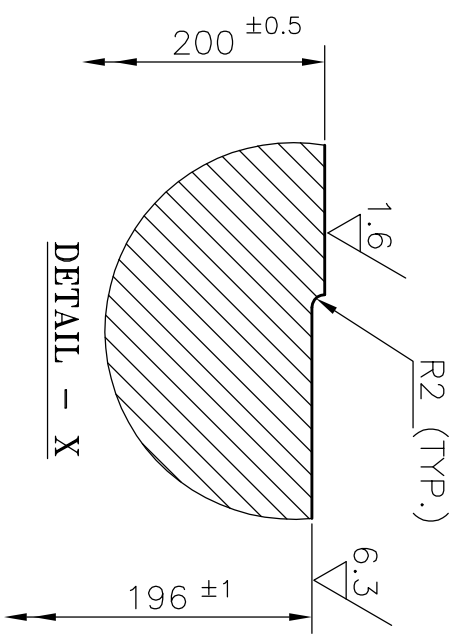
NOTES:

- THIS DRAWINGS SHOWS WHEEL BOGIE CONCEPT WITH 32 WHEELS HAVING WHEEL DIAMETER Ø1000.
- ALL DIMENSIONS ARE IN mm.

FOR RO ISSUE ONLY			ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE	REVISIONS			DRN	CLEARED					APPD	DATE	ISSUE
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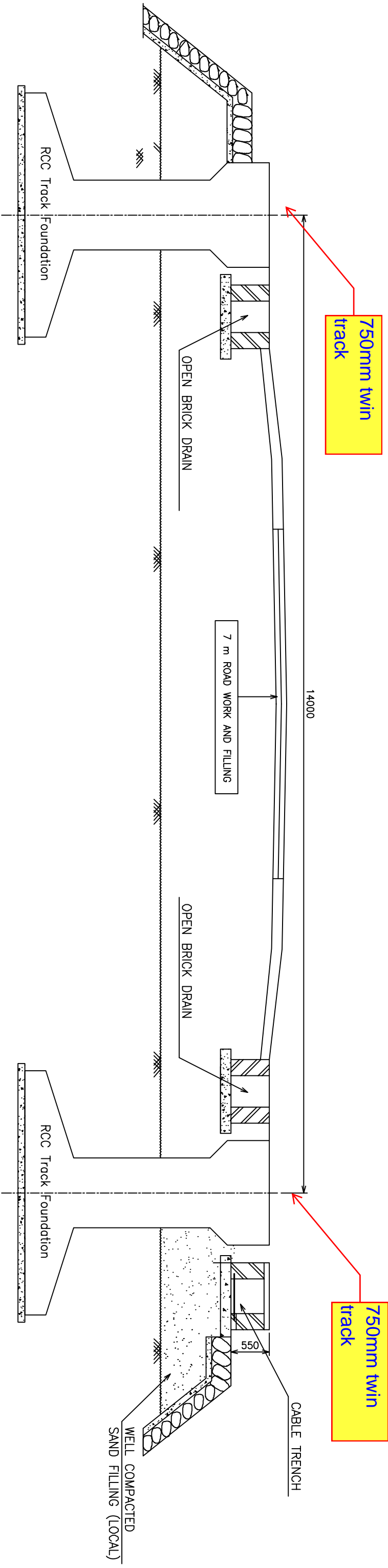


M30x50/60-24x(12x ON EACH SIDE)
 EQUISPACED ON 500 P.C.D.

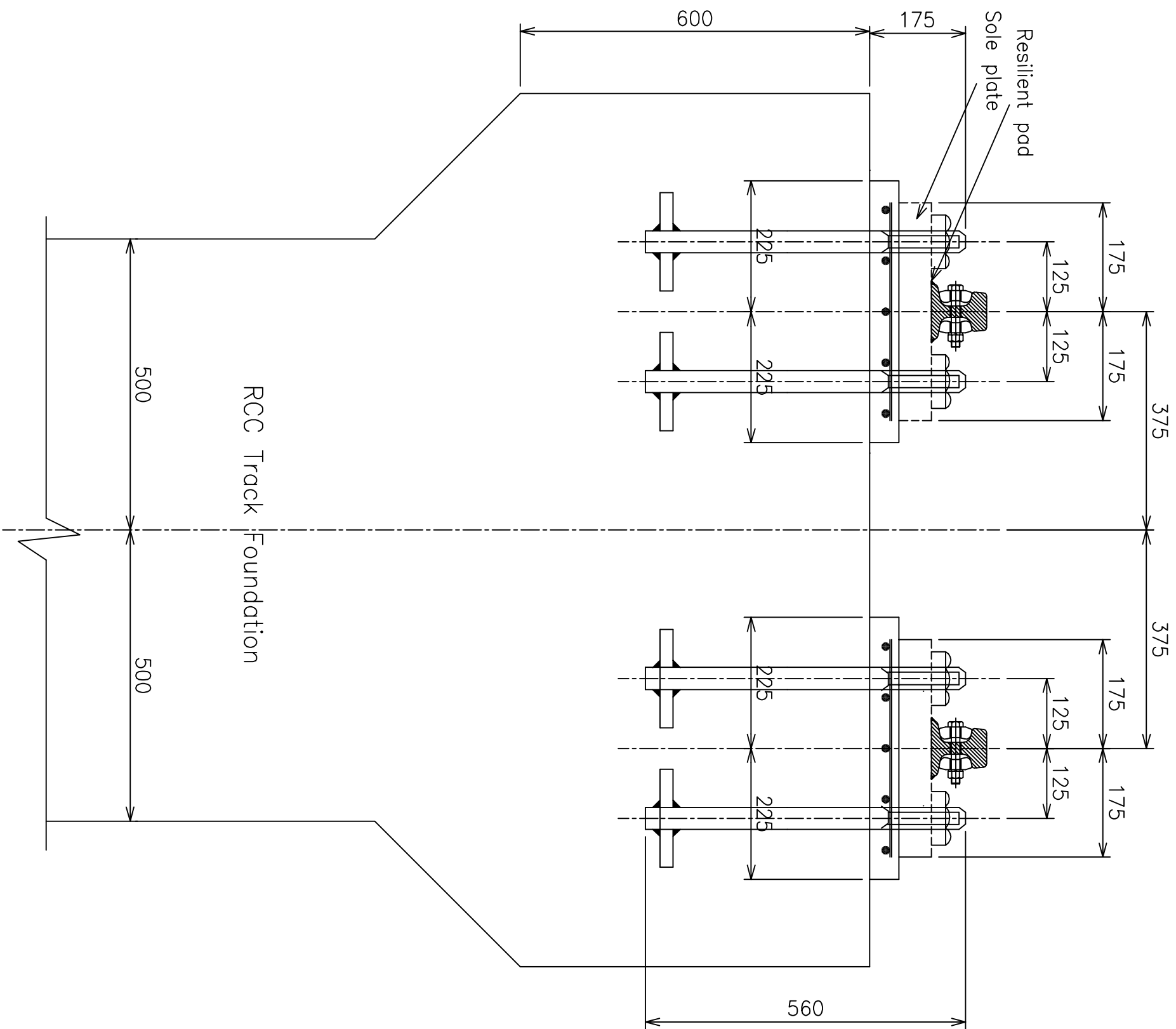


Wheel for bogie

ALL DIMENSIONS ARE IN mm
 Date: 12.05.2015

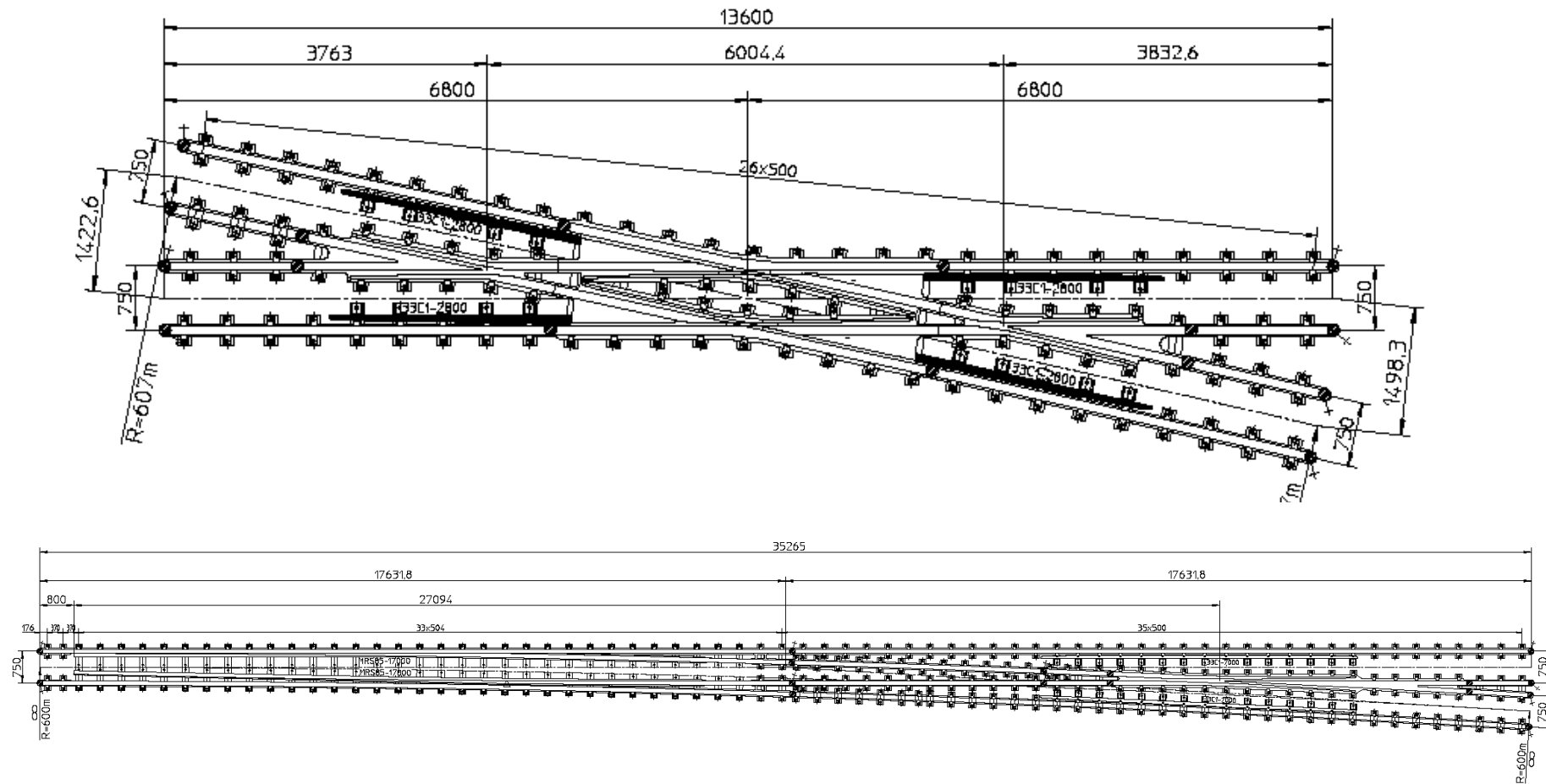


All dimensions are in mm



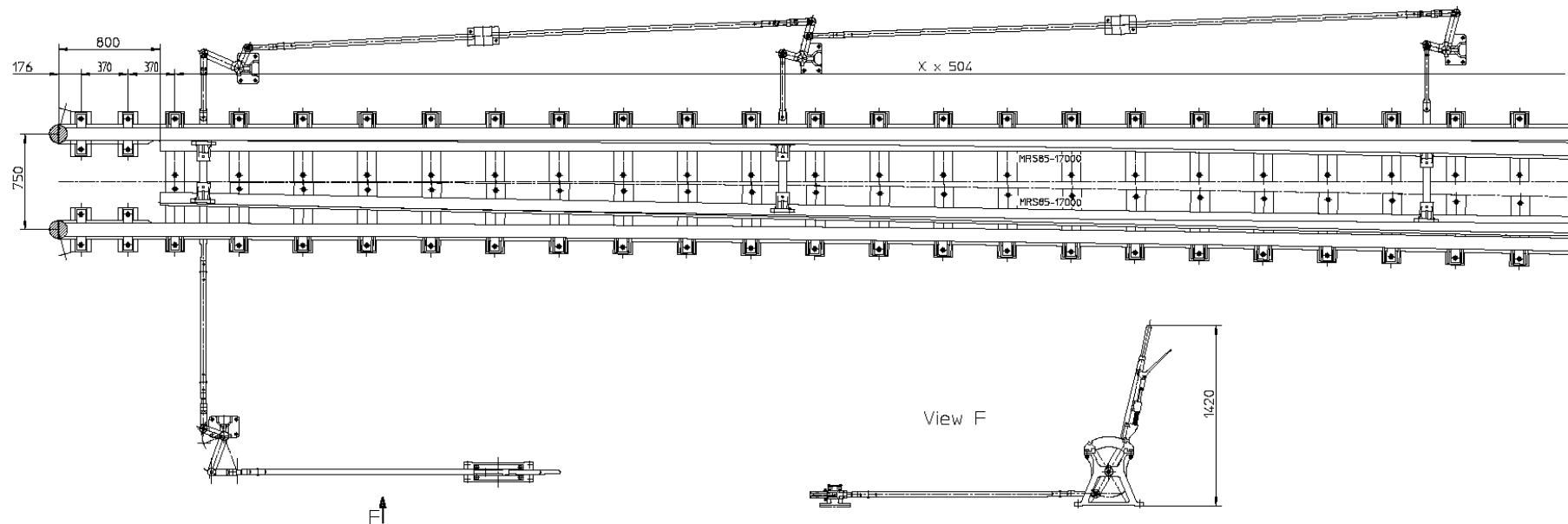
All dimensions are in mm

Sketch 3: Rail track details (Sheet 2 of 2)



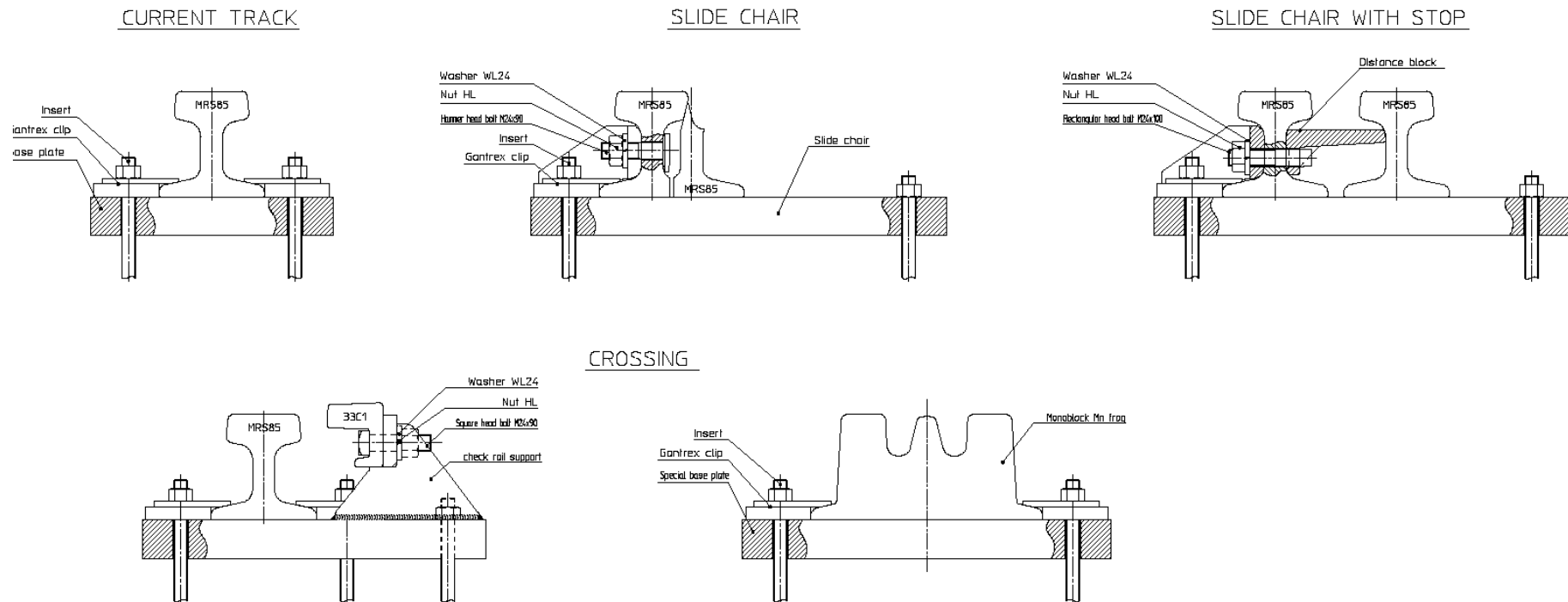
SDSC/SVAB

Sketch 4 B- Track Change Over System



(Note: This drawings are for illustration purpose only, party has to design as per actual layout)

Sketch-04 C Track Change Over System-Turnout Section



(Note: This drawings are for illustration purpose only, party has to design as per actual layout)